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AMERICAN MANAGEMENT ASSOCIATION
330 WEST 42nd STREET

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The Management REVIEW

FACTORY visits, which were interrupted by the war, are once more proving to be potent builders of good will between industry and the community. According to an abstract on page 213 (**Factory Visits for Better Public Relations**), a number of companies are resuming "Open House" days as one of their initial postwar public relations projects. The opportunity provided by these visits for management, employees, and the public to get together and better understand each other's problems goes a long way toward humanizing industry in the eyes of the average American. Recognizing that four years' lack of personal contact with the public has left some employers a trifle hazy on how to get back in the swing of staging "Open House" events, the article provides some practical pointers on how to handle them.

Plant visits, of course, are but a single phase of community relations. How broad a community relations program can be is illustrated by the case of Caterpillar Tractor Company (see pages 217-218), whose community relations division brings all the firm's local contacts under a central organization. Caterpillar officials and employees participate in the activities of fraternal and civic groups, while representatives of top management sit in on City Council meetings; facilities and equipment are lent for various local projects; and 6,000 community leaders are sent the *Caterpillar Magazine* and other company literature regularly. Caterpillar has worked out innumerable ways to be neighborly, and has found that this policy pays.

THE return to a 40-hour week is apt to result in a reduction of unit labor costs, according to studies by the Bureau of Labor Statistics (**Does Overtime Pay?**—page 232). A case example of the Cleveland Graphite Bronze Company shows that the company paid out two hours' wages for each hour's additional output under a longer workweek.

JAMES O. RICE, *Editor*, 330 West 42nd Street, New York 18, N. Y.

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THE MANAGEMENT INDEX

General Management

Wanted: Mature Managers

NEVER before have the men at the helm in industry needed for labor relations so steady a hand or so imperturbable a temper as now. Never before, to put it in a phrase, have industrial leaders been in such need of emotional maturity.

An emotionally mature person is one who accepts unpleasant facts, whatever their genesis, as concrete situations to be handled rather than hated. Accordingly, the mature manager avoids personalizing the developments that are distasteful to him, avoids ascribing responsibility for them to individuals who then can be blamed, and fought, and punished. He knows from hard experience, of course, that the men with whom he must deal from day to day often prove hard-hitting and gritty at best, unreasonable and unfair at worst. He acts upon the cool certainty that unpleasant developments need not by any means be accepted always as inevitable; that graceful compliance with everything his men may want, just because their wanting what they want is "human," hardly constitutes his sole recourse in present-day labor relations. Far from it. But in handling shop situations he recognizes difficult human behavior as simply another manifestation of reality, one more phenomenon in which given causes create the effects that become problems. Upon social and human as upon technical difficulties he

does not make hasty judgments—nor moralistic ones; he remains analytical. He does not exhort and preach; he inquires. Above all, he knows that the reality facing him in shop relations invariably proves more complex than any explanation simple enough to satisfy his anger or his irritation.

Because the very stresses that make maturity essential also make it difficult, the particular pressures under which management must operate during the days ahead certainly constitute a test of the most exacting kind.

It would be hard indeed to find a set of conditions more provocative than those faced by industry in transition. Quite manifestly, these are times of profound disturbance and change—in ideas, codes, relationships, and the delicate balances of group power. Industrial administrators must recognize how such broad, generalized factors as transitional unemployment, veterans' seniority, reduced overtime, all find their reflection in the feelings and conduct of the men and women working under their direction.

One needs always to remember that for the American worker the national problem becomes a nervous, insistent, personal question. Before reconversion, he asked, "Will I have a job next month?" When his plant shuts down he may face still another disturbing decision: "Can I remain in this com-

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munity, or must I move again?" The return to straight-time, lower-paying civilian jobs spells painful personal readjustments for him and his entire family.

At any level this process of reducing standards is a thing of stresses and strains, of fears and frustrations. Any threat of deprivation unloosens aggressiveness, evokes angry, bitter emotions that propel the frustrated individual to the resistance best adapted to his resources in the situation. So it is that the worker, fearful of losing a well-paying job, a newly raised level of income, an improved mode of living, responds to the threatening shop development with resentment and hostility that engender ultimate resistance. Certainly, therefore, if external forces are so "internalized" as individual worries, strains, and pressures, the plant manager simply *must* deal with them through the behavior they evoke from his employees.

And just as employees respond to changes in their jobs, the manager responds to broader economic and social changes. In him, too, the threat of injury to his way of working and living evokes typically the reaction of fear, followed by anger against those whom logically or illogically, he holds responsible.

He fears the effects of union and government intervention upon his ability to maintain profits or, more specifically, his own individual earnings. He fears their encroachment upon his "managerial prerogatives." He fears deterioration of his interpersonal relationships with others in the plant, particularly with the men over whom he must exercise continuing leadership.

And fear stimulates in management, as in workers, the same forms of human response through action. Initially, the

administrator, too, would wish above all to escape the imposition of these hated innovations—that is, in his case, to insulate his plant from the disturbing currents of challenge and change. But isolationism proves an even less feasible mode of escape in industrial affairs than it does in international affairs. Nor can the manager beat back the feared change by all-out fight against it. Just as the worker no longer finds it effective to express his resistance by overt destructiveness like machine-wrecking, so the manager can no longer use the same methods of fighting unpalatable interference that he used in the past. He cannot escape from collective bargaining; wherever he may move, it is still the law of the land. Widening government responsibility in economic life represents a world-wide trend. The social equations of labor receive ever-broadening popular assent.

However, it is not enough, for instance, to recognize that "unions are here to stay" unless that acceptance writes itself into behavior in every function which brings the shop administrator into dealings with union men. The mature administrator, in accepting a new social reality—even one that is distasteful to him—seeks to integrate it into his daily environment. He endeavors to make the collective bargaining he must accept actually work. His acceptance of union organization, therefore, is itself eminently functional. It is directed always toward the goal of sound dealings between management and men in daily shop affairs. It recognizes that every decision of shop policy, and so every managerial action, produces its consequences in employee reaction.

The mature executive keeps his eye steadily on his long-term objective, and tests each step in joint dealings by the

consequences it will produce for the relationships he seeks. He may, and of course often will, face emotionally immature union leaders, which complicates his problem. But whenever possible, he strives to cooperate with the union. What this may require of him in concrete policy will naturally vary with the particular situation in which he acts. In negotiation, handling grievances, in introducing changes, many different adjustments may be required.

In an industry like rayon manufacture, for instance, where the rate of technologic change is so high that it creates continuous problems of displacement, a mature management may write acceptance of this reality, and its human consequences, into the agreement. The American Viscose Company has done this by its pioneering provisions for joint definition of technologic change, for consultation upon each specific innovation, as well as for compensations to displaced employees through dismissal wages or transfer to other jobs.

Finally, it should be recognized that the maturity we seek in our management group, from the foreman to the president of the company, demands patient and many-faceted attention. We cannot simply choose technically promising "natural" leaders and expect them, without help, to become effective administrators, both in line and staff positions. Nor can supervisory and executive training be any facile thing

of copybook psychology or inspirational ballyhoo. We need insight into human behavior, into the forces that make both for conflict and for cooperation.

To advance such insight, our schools of business and administration must prepare and offer truly professional courses drawing upon clinical material that gives appropriate emphasis to the human matrix in which policies are developed and introduced. Personality structures, individual and group behavior, the shop as a community wherein people agree and disagree, modes of accommodation, skills in building relationships—all these and more must be painstakingly examined as the determinants conditioning development of sound human relations.

The problems of administration are too critical, however, to wait upon the slow processes of training a new generation of administrators. Those now on the job, who show a bent for leadership, should be given leaves of absence for full-time attendance at special university courses—courses perhaps expressly devised for such men, and planned within a time limit which would not make them prohibitive for the companies concerned. The training should then continue on the job, utilizing daily experience and problems as the anvil upon which to sharpen insight and skills.

BY BENJAMIN M. SELEKMAN. *Harvard Business Review*, Winter, 1946, p. 228:17.

- TWENTIETH CENTURY FUND findings show that while farmers make up about 23 per cent of our population, they received as net income from agriculture only 7.3 per cent of our national income in 1939 and only 9.5 per cent in 1942. Forty-seven per cent of all farm families had cash incomes of less than \$750 in 1941.

The average monthly wages (with board) of farm workers were approximately \$23 in 1913, \$52 in 1920, \$18 in 1933, \$27 in 1939, and \$35 in 1941.

Factory Visits for Better Public Relations

FACTORY visits were recognized as a major phase of industry's good-will plans prior to the war, and now that the wraps are off production methods that had been on the secret list since 1941, many companies are resuming "open house" in their plants. As an aid to getting back into the swing of planning successful open house events, a quick refresher course on the "do's" and "don'ts" for factory visits seems to be in order.

The first consideration in factory visit planning is: Shall it be on a year-round basis or limited to a specified period? Because a special corps of planners, guides, and demonstrators is imperative for 365-day open houses, this type of program is usually restricted to large organizations like automobile manufacturers and utility companies. Smaller plants, with limited personnel and public relations budgets, have found that visiting periods ranging from one to seven days are sufficient to get across their public relations story.

Next thing to decide is the type of show to be staged. That depends largely on the product and whether it can be better presented by showing how it is made or how it is used. Of course, variations of both can be used also.

At Ford Motor Co., where emphasis is on how the product is made, visitors are taken on an hour-and-a-half tour of the River Rouge plant to view the more spectacular phases of automobile production. Right at the start, visitors are struck by the vastness of the Ford plant—thanks to a bus ride over an elevated roadway which gives a panoramic view of the nearly 1,100 acres of huge buildings, smoke stacks and the well ordered network of streets and roads.

From the time the visitors see the first Benson Ford furnace—where the molten iron is poured, marking the first step in the production of an automobile—until they reach the final assembly line to watch the finished car roll off under its own power, every effort is made to explain in man-in-the-street language the workings of the vast organization. As an added aid to public understanding, interpreters are always available to translate for foreign visitors who do not speak English.

Many manufacturers will find that their sales story can be told better by showing how the product is used. Before the war, General Electric staged a demonstration of electric lighting at the Edison Lighting Institute, using many thousand feet of floor space to show the various types of lighting arrangements—for home, theater, street, store window, and several others.

Charts detailing employee vacation allowances, sickness and benefit plans, retirement schedules, safety precautions, and other employee benefits and services were posted conspicuously about the plant. Employees who worked various machines for the evening demonstrations did so on a special shift, which was substituted for their usual working hours.

Each company, of course, must adapt its open house program to its own conditions. Particular care should be given to selecting the part of the plant that is to be emphasized. Several heavy industry companies have found that unusually noisy machines and certain prosaic manufacturing methods not only bring forth little visitor enthusiasm, but sometimes create impressions that working conditions in the plant are below standard. The key to a successful

presentation of your plant hinges on the skill with which you select and then visualize its most interest-arresting features, abetted by emphasis on employee benefits, various safety precautions, etc.

Once the decision is made on what is to be shown, the next step is to decide who shall show it. For limited open houses, it has been found that plant foremen and members of the advertising staff, who know the manufacturing process, are often best able to demonstrate the procedure. However, certain companies prefer to train specially hired guides—usually from nearby colleges—whose appearance and speech insure an interesting presentation. One cardinal rule, regardless of who the demonstrator is, is that his talk be as clear, concise and well prepared as a sales talk—for that is what it really is. Another *must* is insistence that all guides, hostesses, and demonstrators treat visitors with the utmost courtesy.

There are numerous techniques for inviting the public to special open houses. In addition to general invitations issued through local newspaper ads and radio commercials, the presence of public officials, businessmen, and employees may be requested personally. Schedules may also be arranged for the mass visits of school children at specified times. Special display material saluting open house should be furnished local and nearby retail outlets. One firm hit on a novel idea to whip up preliminary enthusiasm by sending personal letters to the wives of all married employees. Their curiosity aroused, most wives became self-appointed missionaries for the event, not only talking their husbands into the spirit of things but also passing the word along to their neighbors and friends. The president of another plant cemented good civic relationships by personally escorting

the mayor and other local dignitaries on their tour of the plant. Plants sponsoring year-round factory visits usually use trade papers and spot newspaper and radio announcements to carry their invitations.

Routes for the show are particularly important. Marked plainly with arrows, they should lead from the main entrances to the chief exhibits. Care should be taken to avoid overcrowded locations and dead ends which would result in congestion and traffic tie-ups. In large plants where the area to be covered is extensive, rest rooms and entertainment facilities should be spotted at convenient locations so visitors will not get tired before they have seen the entire display. One large utility company, which has open house all year round, installed a motion picture room where weary guests can rest for a half hour or so while watching the movies—which, of course, include advertising for the company. Plants whose visits are confined to a specified period each year can solve the rest problem by converting stock rooms or outside offices into temporary movie, reading, or refreshment rooms.

Exterior arrangements are also important. Road signs, where permitted, are a sure way of keeping prospective visitors from getting lost and abandoning the idea of continuing on to the plant. One plant, located on the outskirts of Philadelphia, solved the directions problem by including a map in the newspaper ads that announced its show. The map gave complete auto, bus, and street car directions to the plant from all sections of the city. Provision should also be made for adequate parking facilities and company or city traffic policemen to handle the crowds.

Music and refreshments are a great help in taking the strictly business at-

mosphere out of open house and putting it on a friendly and informal basis. However, any refreshments served should be readily edible. For instance, ice cream served in small cones or edible cups will probably be eaten without any leftovers, obviating the waste and rubbish problem.

Advertising departments might well take advantage of open house crowds for research surveys to determine the effectiveness of their own copy and campaigns. The Armstrong Cork Co. of Lancaster, Pa., which entertains thousands of visitors every year—many of whom come in organized groups—conducts an advertising survey right in its own back yard. Questionnaires are distributed to visitors to test prefer-

ences on Armstrong ads and the product itself prior to, and after, a color-scheme demonstration designed to foster the use of linoleum for all rooms in the house.

Permanent contact—and good will—with visitors can be maintained by direct mail if their names and addresses are obtained when they visit the plant. Courteous good-looking hostesses should be stationed at registration desks near the entrance to the exhibit to solicit this information. The follow-up, through "thank you for your visit" letters and periodic announcements, will go a long way toward keeping the friendship of the visitor on a year-round basis.

By E. J. CUNNINGHAM. *Printers' Ink*, December 14, 1945, p. 162:3.

The Union Leader: A Collective Portrait

OF ALL the conspicuous types in the United States, probably the least accurately known is the trade union leader. What, really, is his place of birth, his average age, his occupational origin, his educational equipment, his road to power in the unions?

To answer these questions, a study was recently made of men in the top-flight policy-making circles of American trade unions. They are a 50 per cent sample of the presidents and secretaries of national and international unions of both the AFL and the CIO; the presidents and secretaries of the State Federations and of the departments of the AFL; and the heads of the State Industrial Union Council of the CIO.

Place of Birth. Approximately 85 per cent of the present officials of the AFL were born in the United States. Fifteen per cent are foreign-born, 10

per cent being of the "old immigration." Seventy-nine per cent of the CIO leaders are American-born—13 per cent of the "old immigration." In 1925, 68 per cent of all the trade union leaders were U. S. born. Today the figure for the combined AFL and CIO leadership is 83 per cent. Thus the cry of "foreign-born agitators," so far as the labor union officials are concerned, has lost whatever relevance it may ever have had. The great bulk of the officials of the two big union groups were native citizens of the United States.

Age. The average trade union leader is 46 years old. This "average," however, does not mean very much, for there are two typical (modal) ages and not one. The differences between the AFL and the CIO leaders are of more interest than the over-all average age. The average age of the AFL official is 55; of the CIO official, 42. The AFL

leaders are much more spread in age, 19 per cent of them being over 64, and a little more than 2 per cent being under 35. The CIO sample contains no official over 64 years of age, and more than 21 per cent of them are under 35. Most AFL leaders are between 45 and 70; those of the CIO are between 30 and 45. On the average, CIO men are 20 years younger than corporation executives, 14 years younger than AFL leaders, and 13 years younger than governmental officials.

Occupational Origin. About 60 per cent of the labor leaders come from laboring families; of these, the bulk are skilled labor. There is no significant difference between the proportions of CIO and AFL fathers who followed semi- and unskilled trades. In both, these are negligible sources of recruitment. The next group, 16 per cent, are from farming families—most of them owners of farms. Owners of small businesses are third in rank, making up 14 per cent of the total. The owners of businesses were either independent tradesmen, craftsmen, or proprietors of small retail shops. The remainder are rather scattered in origin.

Education. In view of the relatively low occupational origins of the trade union officials, their educational attainments are surprisingly high: Twenty-two per cent of the total went to college. The rest are rather evenly split between high school (41 per cent) and grammar school (36 per cent).

The difference between the formal education of AFL and CIO leaders is clear-cut: CIO men are better educated. Thirty-two per cent of the CIO leaders are college men, though not this many finished college; only 16 per cent of the AFL men went to college.

Career Pattern. The pre-union careers of the labor leaders fall into two

distinct occupational patterns. The great bulk of these men simply took jobs in the trade or industry with which they were later to deal as officials of a union. They do not appear to have taken these jobs merely to become members and thus labor officials. They were located on the worker level.

There is, however, another career pattern which is of great interest. Before they became union officials, 20 per cent of the labor leaders have held jobs "higher" than the jobs organized by their respective unions. Most of these jobs are in the white-collar brackets—accounting, clerical work, and salesmanship predominating. Also included are former real estate men, teachers, social workers, ministers, one acrobat, and one professional ball player.

Eighteen per cent of the AFL leaders have followed this white-collar pattern, while 23 per cent of the CIO men have done so. (These figures exclude the few officials of white-collar and professional unions—all of whom fall into the first major pattern.) In both organizations the white-collar pattern is slightly more frequent among the state officials than among the officers of the Internationals, and in both union blocs more of the secretaries have held white-collar jobs than have the presidents. Only 10 per cent of the AFL and 13 per cent of the CIO International presidents have gone through the white-collar link, whereas 24 per cent of the secretaries of the AFL unions and 33 per cent of the secretaries of the CIO unions have done so.

Ascent for the bright working-class boy, as well as for the educated middle-class youngster, has perhaps of late been more probable within trade union channels than within the hierarchies of business. This is suggested by the greater proportion of men of lower occupational origin who are at the top in

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trade unions as compared with business (and probably governmental) positions of comparable income and power; by the younger age at which the trade union leader attains these positions; and by the lesser amount of formal education apparently required for the union career. Previously, and even today, a higher education was not regarded as an asset for a trade union career. If present trends continue, however, we may expect that the climb to success in unions will require a better education, and we may expect more able young men to follow the trade union route to

high positions of income and power. At the present time, labor's leadership contains a greater proportion of the sons of laborers than any other group of comparable income on which statistical information is available. Although existing information is meager, statistically speaking the CIO has offered young men of working-class parents a shorter road to positions of power than has any other organization, except the Armed Forces, during the past decade.

By C. WRIGHT MILLS and MILDRED ATKINSON. *The Public Opinion Quarterly*, Summer, 1945, p. 158:18.

Firm with Home-Town Pride

A TROOP of Peoria, Ill., Boy Scouts were sweating over picks and shovels in an effort to convert a vacant lot into a baseball diamond. It was slow going, and the results were not very satisfactory. Pleased with an interruption that offered an excuse to lean on their implements, they paused to watch a bulldozer rumble purposefully down the street. Their joy was obvious when the monster swung into their vacant lot, halted long enough to find out what needed to be done, and then made speedy work of doing it. Caterpillar Tractor's community relations division was demonstrating that a corporation can be a good neighbor.

Caterpillar believes that the affairs and problems of the communities in its vicinity—it has some 18,000 employees coming from more than 100 different towns and villages, some 25 or 30 miles away—are, both directly and indirectly, of concern to them. The theory is based on the observation that what is bad for a community is bad for its citizens. Since the company employs

about 25 per cent of the usable local labor supply, it follows that what is bad for the citizens is bad for its employees and, thus, is also bad for Caterpillar.

Caterpillar officials have long known that the people in and near Peoria want to know about local industries, want to feel that such industries are interested in the community. Further, company officers realize that it is not logical to expect the people of any community to take a real interest in Caterpillar if the company shows no interest in them. If there is to be a healthy atmosphere, where everyone prospers, company and community must understand each other. This is why the management likes to have company personnel participate in community affairs.

No small number of the company's men and women voluntarily participate in the activities of such organizations as the Boy Scouts, YMCA, and Girl Scouts. Others serve with civic groups, such as public health, labor, recreational, farm, parent-teacher. The management encourages these individuals to

tell it of their outside activities and to suggest ways in which Caterpillar may serve the organizations in which they are interested.

Some 20 months ago a special community relations division was organized to bring all the community contacts under a central organization. The job of this division is to see that Caterpillar pulls its weight as a "citizen." Since Caterpillar weighs a lot—its plant buildings alone cover 80 acres—that takes a lot of pulling in many directions.

For instance: There is a mailing list of almost 6,000 local business, labor, education, and church leaders who receive the *Caterpillar Magazine*, the company year book, and other literature of possible interest. The division also keeps careful record of the accomplishments of various local leaders. When they do something outstanding, company officials send personal congratulatory letters.

Each week the division selects two of the company's 50 top men to attend City Council meetings to indicate Caterpillar's interest in good city government. They attend simply to listen and to answer questions.

The division also arranges talks and programs for churches, civic organizations, clubs, and schools, bringing to their audiences good company speakers and providing films, projection facilities, and operators. Such affairs number as many as 10 and 12 a week.

There is an art exhibit, too. It's a special three-unit display of the original art work used in Caterpillar's national advertising during the war. Because the originals were done by top-notch artists, the exhibit is of special interest to art students. Most of the schools and colleges of Peoria, Pekin, and Decatur displayed it. So did banks and large department stores.

The company's showroom windows and the sides of its trucks are devoted to community advertising—for Red Cross, Community Chest and other local organizations.

For various local projects, company products, facilities, and equipment are lent. Recently, local CIO leaders were somewhat surprised when they were offered one of the company's DW-10 tractors—a big rubber-tired job—to haul their float in the Labor Day parade.

By DONN LAYNE. *Nation's Business*, March, 1946, p. 47 :4.

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Many readers of THE MANAGEMENT REVIEW have friends in management circles, and associates in their own organizations, who do not receive the REVIEW and would appreciate knowing about it. To acquaint such individuals with this publication, we printed an extra-large edition of our special 64-page May issue. This number of the REVIEW includes outstanding articles of permanent value on various aspects of management. While the supply lasts, copies will be sent *without charge* or obligation to individuals whose names and addresses are submitted by readers. Send the names of those you believe would like to receive a gift copy to: Managing Editor, THE MANAGEMENT REVIEW, American Management Association, 330 West 42nd Street, New York 18, N. Y.

Office Management

Working Conditions in 222 Offices

At the Cleveland convention of the United Office and Professional Workers of America, CIO, held in late February, union delegates representing 60,000 clerical workers set up the following goals:

- A minimum salary of \$30 weekly for a 35-hour week
- Minimum rates for key jobs in each industry
- A minimum salary of \$50 weekly for specialized jobs
- Job classification systems
- Weekly pay
- Guaranteed annual wages in seasonal industries
- Equal pay for equal work for women

Today, faced on the one hand by the threat of unionization, and on the other by the need for meeting competitive offers in the job market, the executive in charge of clerical help needs information very badly. How many companies have adopted a 35-hour workweek? Should formal rest periods be allowed? How much vacation should be given? And, most important, what are the most common salary classifications for white-collar workers?

To furnish information on these and other basic questions of importance in determining personnel practices for clerical workers, 222 executives contributed their experience to the compilation of this report. The companies reporting are of all sizes, with clerical staffs of from 10 to over 1,000 persons; they are scattered across the country; they represent every size of community from metropolitan areas to country districts.

Certain broad general trends may be observed:

1. The general salary level is far below that which the union demands.
2. One-quarter of the contributing companies use job evaluation systems for clerical jobs now, and more are planning to install such systems.
3. Weekly pay is distributed by about half the companies.
4. Guaranteed annual wages for seasonal workers are not offered.
5. Equal pay for equal work for women is the accepted practice of most companies.
6. Insurance programs are available to nearly nine-tenths of the workers.
7. Profit-sharing for clerical workers is rare; the annual bonus is still the most common device in this field.
8. The five-day week is increasing in popularity.

Now let us consider in greater detail what policies companies have adopted regarding length of the workweek, lunch and rest periods, vacations, etc.

Workweek. The 40-hour week is accepted almost unanimously as standard for clerical workers, according to the contributors to this report. A few companies work slightly longer periods and a few slightly shorter, but the general pattern is built around the 40-hour system.

Of course, a wide variation is possible, and does occur, in the arrangement of the workweek. There is a definite tendency, for instance, for the

working day to start and end earlier the farther west the company may be; only one-third of the eastern companies begin work at 8 a.m., while nearly two-thirds of the West Coast companies do so. More than a quarter of eastern organizations open their offices at 9 a.m., but only 5 per cent of the western companies start this late.

Earlier hours are also typical of smaller communities. Three companies in cities of under 10,000 population reported workdays starting at 7 a.m., and more than half of this group is at work by 8 o'clock, while not a single small-town company begins as late as 9. At the opposite extreme, nearly a quarter of the organizations in metropolitan areas begin work at 9, and two reported a workday beginning at 10.

National averages, however, are concentrated in two main groups—8 to 5 and 8:30 to 5. Nearly half of the reporting organizations use one of these periods as the workday.

One of the country's most unusual arrangements is that of the Barbasol Company, whose hours are from 8 a.m. to 3 p.m. with 20 to 30 minutes off for lunch.

Lunch Periods. More than half of the companies have lunch periods of one hour. The other half of the group is rather evenly divided between 30-minute and 45-minute lunch periods; one company reported a 20-minute break and two give employees an hour and a quarter. Shorter lunch periods are somewhat more common in the big cities than in other communities, and in the western and southern areas than in the eastern and central regions.

Saturday Work. The companies were divided about equally between those which require employees to work a half-day on Saturdays and those

which have adopted five eight-hour workdays as the workweek. A definite relationship may be seen between the size of the community in which the company is located and its policy in this respect; in metropolitan areas of over a million population, 71 per cent of the contributors close their offices on Saturday, while in the smallest towns only 55 per cent have such a policy. Equally definite is the relation between the area in which the company operates and its attitude toward a five-day week. The East and South are approximately three-quarters committed to it, while only one-quarter of the group in the West gives employees Saturdays off.

It seems a safe prediction that the trend toward abandoning Saturday work will continue, because of its beneficial effect upon morale and its tendency, in some cases, to reduce operating costs.

Rest Periods. The purpose of giving formal rest periods is, of course, to overcome the fatigue resulting from the monotony of the great majority of office tasks and thus reduce errors and accidents caused by the carelessness of tired workers. And, as one manager commented, "The girls will go out at least two at a time anyway. Our total loss is reduced by giving them all one rest period."

The length of formal rest periods is in general somewhat greater in the larger cities, and very definitely related to the area of operation. Only 40 per cent of the companies in the East have formal rest periods, and only 8 per cent of them have periods of 15 minutes. On the West Coast 85 per cent of reporting companies have rest periods. The South and Central areas, where about half the companies make provision for a break, use the 15-

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minute period in about one-third of all reporting companies.

Time Clocks. The companies which employ large numbers of wage earners are more inclined to require clerical employees to punch time clocks than is the case among firms whose primary function is some type of office work. However, among companies in professional service fields—insurance, advertising, management consultation, etc.—only 15 per cent use time clock records for clerical employees.

Vacation Policies. Approximately three-quarters of the clerical workers in the reporting companies receive a two-week vacation with pay after one year's employment.

Most other companies provide one-week vacations at the end of one year, and two weeks at the end of two, three, or five years with the company.

Most companies give no vacation at all to employees who have been with them less than six months, and prorate vacation time for personnel who have been in their employ more than six months and less than a year. A day for a month is typical of the organizations which have two-week vacations.

The basic question in personnel relations remains that of payment policy.

Regardless of whatever employee benefits are provided, no office will have a permanent, contented, and efficient staff if the clerical workers feel that they are discriminated against on payday. In the recent Dartnell survey of salaries paid to more than 20,000 office workers across the country, there was definite evidence that clerical salaries have not moved up to match the estimated $33\frac{1}{3}$ per cent increase in the cost of living which has occurred since 1940.

Among companies reporting in the Dartnell survey, only 15 per cent paid more than \$40 a week for a 40-hour week to any of the 30 commonest classifications of office workers. Salary ranges from \$20 to \$30 were being paid to 39 per cent of clerical employees, and 44 per cent received weekly earnings in the \$30 to \$40 bracket. The number of workers receiving more than \$60 was slightly over 1 per cent. There seems little doubt that the present difficulty in hiring office workers is caused in part, if not chiefly, by the wage differentials existing between white-collar jobs and other types of work.

From *Dartnell Report No. 542* (Section 1), The Dartnell Corporation, Chicago, 1946.

Dictation Is a Two-Way Affair

GOOD dictation, like public speaking and radio broadcasting, has its own peculiar and definite technique. If this technique is neglected, as it often is, considerable losses in time, energy, and patience are experienced by the individual dictating as well as the one taking notes on the spot or transcribing the cylinders later.

The technique consists chiefly in

being mindful of transcriptionists' needs. It requires so little effort to practice—much less, for example, than composing the actual wording of the letter—that it could be adopted readily by every dictator.

Before a stenographer is called for desk dictation, the executive should run over the correspondence at hand, jot down the pertinent facts, and

have a fairly clear idea of what each dictated letter is going to cover. If a particular letter is to be answered only in part, the portions being answered should be bracketed. A better method, however, is to acknowledge the letter briefly and request memos from appropriate sources so that the entire letter can be answered by one correspondent.

Desk dictation should not be started until the stenographer is seated and has found the proper place in her notebook. Dictation cannot possibly flow smoothly when the principal paces the floor or directs his comments toward an open window. If the stenographer sits at one side of the desk, a slight turn of the dictator's head in that direction makes his speech more audible.

The room should be quiet. Moreover, it is helpful to acquire the habit of gauging the stenographer's speed by noting the number of strokes she has to make to catch up at the end of a long sentence or paragraph. A competent stenographer usually keeps about four words behind the speaker's voice. This average may diminish to zero during pauses or increase to eight or 10 words in rapid note-taking. Permitting her to fall behind more than this number of words is risky, because the stenographer can keep only short sequences of words in her head at a given time. If the dictator leaps ahead too fast or too far, the stenographer usually remembers the word group she is writing and the word group she is hearing at the moment, but connecting links sometimes escape her.

The lost word or phrase, therefore, usually lies between these two word groups. In a rapidly dictated sentence, containing 22 words, the missing portion is likely to be between the 15th and 20th word, as the stenographer

has written the initial words, carried in her mind the next eight or 10, and has a fresh sensory impression of the concluding two or three. The missed words are often parenthetical expressions, such as "if you can," the omission of which still permits the sentence to make sense.

It is generally preferable to pause briefly and naturally between phrases or sentences than to dictate commas, periods, and other punctuation marks in a continuous monotone. Naming paragraph separations is optional. Speed step-ups are not undesirable if developed cautiously. Until a new stenographer becomes accustomed to the dictator's voice and method, however, it is expecting a great deal to compare her performance with that of another who has had thorough experience.

Rather than wait for questions to arise as work is transcribed, it is preferable to encourage the stenographer to ask questions at the end of every letter, while its contents are still fresh in the dictator's mind. In that way he is not interrupted while dictating, nor is he called upon two or three hours later to settle a doubtful minor point that could have been clarified before the stenographer left his desk.

Clear enunciation of *s's* as in "orders" and *d's* as in "missed" are helpful, especially when these endings vary from normal expectancy. Unless clearly stressed, for example, more often than not the final *s* is omitted from the sentence, "Thank you for your orders."

If earlier correspondence is handed to the transcriptionist in the same order as the new letters have been dictated, names and addresses need not be spelled out, for they can be checked readily. Once in a while, however, a

name buried in some previous letter or memorandum must be mentioned. In that case it is safer to indicate spelling—particularly if the name happens to be an unusually spelled name like "Kathryn."

Because of its mechanical medium, machine dictating is subject to special restrictions. A flesh-and-blood stenographer with an unopened notebook may or may not adjust her position in time to record an opening paragraph correctly, but words spoken into a dictating machine vanish into thin air unless its recording mechanism has been started. A preliminary listening test takes only a few seconds and insures that the disc in use has been properly shaved. If this has not been done, a faint but confusing undertone will accompany the new dictation.

When the dictator assumes an "off-mike" speaking position while rummaging through papers, the transcribing operator must strain to catch exact sounds. And, since many older machines reproduce sounds in higher pitch and at greater speed than they are actually spoken, a clear, even voice is an advantage. Though thoughts often run ahead of speech in routine correspondence, no good comes of running words together in such fashion as "Doyousweartotellthetruth?"

Good enunciation at low or moderate pitch gives clearer results than does loud machine dictation. "Asides," or

remarks not intended to go into letters, are sometimes harder to distinguish on machines than at desks.

The scale for indicating letter lengths is not complete when vertical lines are pencilled in after each letter has been dictated. Canceled letters should also be indicated by a solid block or by prominent x's so that the operator will not waste time in preparing unwanted correspondence. All quotations from other letters, or long reports to be included in machine-dictated letters, should be indicated on the scale by check marks or by some other agreed-upon sign. Such marks signal the operator to refer to the material to be quoted and estimate marginal widths accurately the first time.

It is always advisable to read a letter before signing it. The dictator himself may have accidentally skipped a detail that may possibly be added as a postscript. Or the transcriptionist may have missed an important word, phrase, or sentence, or failed to correct misspelled words. Finally, the stenographer may have written exactly what was said but *not what was intended*. Since the reading vocabulary is much more revealing than the speaking vocabulary, a glance at the finished letter is one of the quickest ways to detect slips of this sort.

BY JOSEPH CALLAHAN. *The Office Economist*, No. 4, 1945, p. 8:3.

- THE AVERAGE American business man lives longer with his desk than he does with his wife. Not only does he work at his desk eight hours a day, more or less, but he sticks to the same desk year after year, while one out of five marriages today ends in divorce. So, according to the Wood Office Furniture Institute, wood desk manufacturers are giving their postwar models the appeal that will cause executives to "divorce" their old desks and "carry on" with new ones—perhaps blonde (finish) models.

—*The Office* 1/46

Personnel

Labor and Technological Advances

RECENTLY it was reported that a synthetic rubber plant in Louisville, Kentucky, had produced 200,000,000 pounds of rubber in its first two years of operations. The plant employed 734 workers, and the manager estimated it would have taken 45,000 natives to produce the same amount of crude rubber from latex in the East Indies. There we have an extreme example of the effect of technological advances on employment and an explanation of labor's frequent efforts to resist them.

When, in the latter part of the 18th century, the silk weavers of Lyon smashed the new Jacquard loom and threw the inventor into the river, they were expressing their fear of losing their jobs because one man working on the new machine could do as much work and better work than several men had done previously by hand. The reaction of labor in the 20th century to similar situations is essentially the same, if less violent. When electric cloth cutters, capable of cutting 50 or 100 plies of materials, were held down to 12 or 18 plies; when new mechanical loaders and conveyors in coal mines broke down because of carelessness; when painters refused to use spray guns in ship-building; and when salmon canners kept 20 men on new equipment requiring only 12 men—fear of technological unemployment and of technological loss of skills was the real underlying cause.

But it would be an error to assume that labor is always antagonistic to technological advances. Labor's attitude has been essentially realistic and

based on hard experience. When improvements were made for better working conditions or when they opened up new fields of employment, labor generally reacted more favorably. But when technological advances resulted in more strenuous or less interesting or more hazardous work, or when they led to reductions in manpower needs, labor has been generally antagonistic.

As long as they have inadequate protection against loss of jobs, it is only human for the workers affected to resist the introduction, or the more efficient operation of labor-saving devices and equipment. Fears of workers for their own security must be dealt with at the source. To eliminate them it is necessary, first, to provide security of employment; second, to provide security of labor income; and, third, to give labor a better understanding of the objectives.

The timing and rapidity of introduction of technological advances resulting in labor savings should always be carefully considered. As far as possible most changes of this kind should be made during periods of rising production and employment. If this cannot be done and there is surplus labor, the next solution is to transfer the surplus workers to other jobs where they can be used. For example, one new strip mill in the Chicago area displaced 600 experienced sheet rollers, but the company provided other jobs and no worker was laid off. Unfortunately, transfer is not always possible. In fact, it is frequently impossible at the very time it is most desirable, i. e., when production is on the downgrade. Another

corrective measure is to stop hiring replacements for turnover resulting from other causes, but this is also subject to the same kind of limitations. When such alternatives as these are not possible or adequate, surplus labor could be used on special non-productive jobs, held in reserve for such needs. General cleaning and maintenance of plant buildings and grounds, roadways, and tracks, are in this category. It may even be desirable to create work which, while not necessary, still has a certain value—for example, surfacing of roadways and walking paths, improvements in drainage and sewer systems, etc.

If layoffs are inevitable, reemployment priority, free employment service, and dismissal compensation should be provided. Dismissal wages for technological unemployment should be a consideration distinct from general unemployment insurance. With most technological advances, the employer receives some immediate benefits. If a substantial portion of those benefits is reserved to compensate workers made idle by these or later changes, labor will be far more inclined to cooperate.

It is argued by some that such financial provisions reduce the benefits of technological advances, defer price reductions and, therefore, postpone the expected increased demand for production and employment. It is also held that such provisions may place certain manufacturers at a competitive disadvantage, with similarly adverse consequences. The fact remains, however, that many very successful concerns in highly competitive industries have been providing substantial dismissal or other similar technological unemployment benefits for many years, and believe they are justified from both the business and the human angle. Further, provisions of this type are a strong additional incentive for management to

do better planning and to avoid, as far as possible, situations necessitating financial compensation for non-productive technological idleness.

Regarding income security, protection against loss of wages because of decreased skill requirements is seldom possible under present conditions. Most wage structures recognize skill as a major factor, and when technological advances eliminate a substantial part of it, the new job is naturally and inevitably worth less. Probably the best solution to this problem is to provide training facilities for those workers who must accept less skilled and lower paid jobs so they can acquire other needed skills and eventually return to higher paid classifications.

When technological changes are introduced where incentive wages are used, production often decreases during the transition period while workers are becoming fully familiar with the change. If no special provision is made, this results in smaller incentive earnings for some time, and the workers affected may feel unjustly penalized.

If the change demands extended experimentation, the work should be paid as straight day work at a special hourly rate large enough to make up for the loss of incentive wages, and to compensate for any additional skill required during the experimentation period. If the change is definite but requires a certain amount of learning, a pre-fixed but decreasing bonus can be provided for the period considered necessary for becoming fully familiar with the job. For instance, if this is expected to take four weeks and if the past incentive earnings of the experienced workers averaged 20 cents per hour, an allowance of 20 cents per hour the first week, 15 cents the second week, 10 cents the third, five cents the fourth, none the fifth and following weeks can be made.

This is to be paid in addition to any regular bonus earned on the new job. These special bonuses may be given in a lump sum to the workers affected, particularly if the necessary period of learning is very short. In the previous example, this bonus would total \$20 on the basis of a 40-hour week. Such procedures maintain an effective incentive while providing fair protection. They also facilitate labor's acceptance of legitimate downward revisions of production standards used in connection with incentive plans.

The procedures used for introducing technological changes also have considerable bearing on the attitude of the workers affected. A few years ago, a large meat-packing plant completely re-laid out and re-equipped its pork-cutting department. The new set-up provided mechanical conveyors, much improved machinery, and better working conditions. The detailed plans were shown to all workers and the advantages and expectations were thoroughly

explained. Then displaced workers were transferred to jobs of similar skill and equal wage opportunities in other departments, while those left were carefully instructed in their new jobs. Incentive wages were protected for a reasonable period. Workers responded beautifully and the results exceeded management's most optimistic expectations.

We must conclude that labor often has an excuse, if not a real justification, when it opposes technological advances. If this attitude is to be improved—and it is important that it *be* improved—management will have to do more than deplore the situation. It will have to do more than preach economic fundamentals or exhort labor to have a fuller realization of its true responsibilities. Management will have to get at the real causes of resistance and provide adequate compensative measures.

From an address by Albert Ramond before The National Industrial Conference Board.

Supervisors Conduct Employee Conferences

SUPERVISORS at Servel, Inc., Evansville, Indiana, follow a well-planned order of business in foreman-employee conferences. Rooms for such group meetings are available at various locations throughout the plant. The order of business is:

These meetings are regarded as conferences and not as classes. The foreman acts in the capacity of a conference leader, and not as a lecturer.

—Management Information 3/4/46

Experience with Profit Sharing

PERHAPS the most important material advantage which the employer hopes to obtain from a profit-sharing plan is an improvement in the general level of efficiency and a reduction in waste. If workers can be made to consider themselves partners in the business, they will be genuinely interested in increasing the profitability of the enterprise, in seeing that no one shirks, and in keeping scrap losses at a minimum. Inasmuch as profits are related to employee efficiency and morale, it is hoped that the sharing of profits will spur the workers on to greater production and cooperative effort. Another motive for installing a profit-sharing plan is to reduce labor turnover.

The extent to which profit-sharing plans have succeeded in achieving their objectives cannot be stated categorically because of the conflicting evidence obtained through various surveys of the Conference Board. So far, these plans have not been widely accepted nor have many survived for long periods. Therefore, it is equally important to study the failures of these plans as well as their successes. Of the 161 true profit-sharing plans surveyed in the 1937 study of the Conference Board, 96, or 60 per cent, were found to have been abandoned.

The high proportion of discontinuance is not a new development nor is it confined to this country. The British Ministry of Labour has kept a careful record of all profit-sharing plans in operation in Great Britain. Of 532 *bona fide* profit-sharing plans of which the Ministry of Labour had record in 1936, 330—or 62 per cent—had been discontinued.

What are the reasons for this high mortality rate which two agencies in two different countries have placed at

approximately 60 per cent? The success or failure of profit sharing does not seem to be closely allied to the particular specifications of the plan in many cases, but rather to psychological factors. An analysis of the cause of failures reveals certain danger signals which should not be ignored.

While 26 per cent of the British plans and 29 per cent of the American plans were abandoned because of either employer or employee dissatisfaction with the results, 52 per cent of the British and 36 per cent of the American schemes were discontinued because there were no profits to distribute or the company had gone out of business or had changed hands. In slightly more than a tenth of the plans, another form of benefit had been substituted for profit sharing.

The reasons for employer and employee dissatisfaction with profit sharing stem largely from the employees' lack of understanding of the principles involved and their inability to comprehend the influence of the business cycle upon profits. The profit-sharing plan apparently works fairly well as long as the company prospers, but dissatisfaction arises when profits diminish or disappear.

An unavoidable defect of profit sharing, especially from the standpoint of the worker, is that profits are influenced by so many extraneous factors over which he has no control, no matter how diligently he works. A change in the price structure, a turn in the business cycle, or an unforeseen contingency, such as war, can affect the prosperity of the business far more than do the acts of employees.

Lack of employee interest in profit sharing was another leading cause of discontinuance. This indifference arose

because the profit distribution was so long delayed that the employee could not visualize the connection between his efforts and the bonus.

Another reason for employees' dissatisfaction was their unwillingness to accept the principles of profit sharing, even though they shared only in the gains and not in the losses. If the company has any money to distribute, they reason, why doesn't it put the extra compensation in the weekly pay envelope where they can count on it instead of making them wait six months or a year for money which may not be forthcoming?

If the profit-sharing plan is to succeed, the wage scale in the company contemplating profit sharing should equal or exceed the going rate in the community for similar tasks. It should be impressed upon the worker that the supplemental bonus depends upon profits and is in no respect a part of wages.

Let us now consider some features of recent plans. Twenty-seven profit-sharing plans which have been adopted within the past several years are included in this analysis. All but two are trustee and only these two provide for immediate cash distributions to employees. The remaining 25 plans were adopted during the period when the federal laws and regulations were still in full force, and when a company could distribute profits in cash to its employees only under very restricted conditions. Some of these plans have been created largely for the purpose of providing retirement benefits for employees upon reaching age 65.

These deferred-distribution plans have been among the most successful in the past, but probably are not the type which will meet the immediate demands of the current labor picture. The analysis, however, will provide

employers with a picture of how the employees' share of the profits are determined and the manner in which the individual's share is allocated, even though the distribution to the participants is not in immediate cash payments.

Most of the *bona fide* profit-sharing plans analyzed extend eligibility to all employees who fulfill definite requirements regarding length of service. Of the 27 plans, 21 include all employees, two restrict eligibility to salaried employees, three to employees earning over \$3,000 a year, and one limits participation to managerial employees.

The most important decision to be made in setting up a profit-sharing plan is to determine how much of the company's profits shall be set aside as the employees' share. Shall this share be taken from profits before or after deduction of state and federal taxes, and what safeguards should be taken to make sure that stockholders receive an adequate return on their investment?

In the 27 companies studied, the employees' share is computed as follows:

Employees' Share	No. of Companies
Per cent of net income before taxes	
5	7
6	2
10	5
20	1
25	1
Per cent of net income after taxes	
3½	1
10	1
15	1
50	1
Per cent of employees' compensation	
10	1
15	1
Miscellaneous Provisions	5

Each of these plans has been tailor-made to the specifications of the individual company and, accordingly, the methods of computing the employees' share vary widely, but it will be noted

that 14 of the 27 allot from 5 per cent to 10 per cent of the net earnings before deducting the state and federal taxes.

Eleven out of the 27 plans contain safeguards to prevent the employees from receiving too large a portion of the profits at the expense of the stockholders. Eight of the 11 provide that the stockholders' dividends shall be deducted from the net earnings before the employees' share is computed. In two plans, which are restricted to executives or to those earning over \$3,000 a year, the employees do not participate in the profits unless the company's earnings reach a specified amount. In one company the employees' share is not to exceed 6 per cent of the invested capital and surplus.

An interesting plan in a meat-packing company based the employer's contribution on both net profits and net sales. For example when the net profits represent 0.1 per cent of the net sales, the company contributed to the fund 1.002 per cent of the net profits.

The proportion gradually increases until the company's contribution reaches a maximum of 20 per cent of the profits when net profits reach 4.4 per cent of the net sales.

In apportioning the company's contribution to the individual participants, two general methods are followed. Under the first, the fund is distributed to the credit of each individual in the same proportion as his compensation bears to the aggregate compensation of all participants.

Under the other method of distribution, the individual's share is weighted not only by his compensation but also by length of service.

In allocating the employees' share of the profits to the individual participants, approximately two-thirds of the plans apportion the funds on the employee's total compensation, including overtime and bonuses, and the remaining third on basic compensation.

BY F. BEATRICE BROWER. *The Conference Board Management Record*, February, 1946, p. 33:6.

Job Development Campaign

THE U.S.E.S. announces the launching of a national Job Development Campaign to speed the reemployment of veterans and displaced war workers.

"Though reconversion has gone better than expected, and national employment is higher than predicted for this stage, too many of the men who made reconversion and expansion possible are still on the sidelines," a U.S.E.S. official points out. "A third of the nation's job seekers are veterans. Why this disproportion?"

Over half of all veterans apply for jobs at U.S.E.S. offices, to which they are directed by Separation Centers and where they must register to receive readjustment payments. However, the U.S.E.S. has insufficient vacancies listed to provide jobs for all these men; furthermore, too many U.S.E.S. listings are for low-grade personnel.

Two million veterans are now registered with the U.S.E.S. These men can make a satisfactory transition to peacetime employment only if management supports the Job Development Campaign by listing openings with the U.S.E.S.

Employee Publicity

THE McBee Company, Athens, Ohio, has set up a control for measuring employee publicity in its plant magazine, *McBee Progress*. Analysis of six issues proved that, of 466 employees, only 189 had been mentioned. Under the new system, McBee cards are coded so information can be gathered quickly and conveniently, with the result that some people get the silent treatment and others "make the news."

—NOMA News 1/46

Production Management

Trends in Plant Design and Construction

DESIGN of industrial buildings will certainly profit from the methods used to solve the numerous construction problems experienced during the war years. But, contrary to the outlook in many other industrial spheres, no revolutionary developments resulting from wartime advances can be expected for awhile in the construction of industrial buildings.

True, there have been developments in various products that undoubtedly will grow in application as research is speeded. Likewise, there have been applications of old materials, new methods of construction have been applied to those old materials, and production-line building procedures have been established—all of which will contribute to the progress of industrial building. But the fact remains that the designers and builders are getting back, just as fast as the availability of materials will permit, to pretty much the general procedures followed before the war. For the present, therefore, it is not the novelties in materials that will seriously affect plant design and construction, but rather the availability of sufficient prewar standard items.

The experiences of the last five years of labor shortages have clarified and given prominence to industrial building trends not so clearly defined before the war. These trends have to do less with the physical aspects of construction than with what might be termed its sociological phases.

Two, in particular, that are taking a pronounced form and definite direction are these:

1. Urgency for designing into a

building every possible aid—whether of beauty, facility, or utility—to realize the utmost in labor productivity.

2. Decentralization of operation from huge, completely integrated in-city projects into smaller units, employing from 1000 to 3000 people, and location of these units in smaller population centers which are more attractive because of cheaper land, better expansion facilities, and more stable labor.

With these over-all trends in mind, let us consider briefly the new developments in building materials, in industrial building design and choice of plant service equipment.

1. *Building Materials.* Of the new materials available, there are few that were not known before the war, and these are mostly developments in finishes, not structure.

Weather-resistant qualities of sidewall panels and partitions are being steadily improved, including use of aluminum for insulation, and better bonding of metal to plywood. Glazed tile for interiors is gaining wider acceptance. Rust-proof materials, such as aluminum for sash, are finding greater use, as well as glass blocks and double-glazed sash.

Selection of insulation for buildings and roofs in particular is profiting by the developments in fiber glass, foam glass, and expanded mica, added to the more familiar items of vegetable fiberboard and cork. The use of metal foil for roof insulation is on the horizon, but still in the experimental stage. Plastic products are expected to be of value in industrial building for roofs, floors, and for other possible applica-

tions, but have not yet been developed sufficiently to make their adoption economically justifiable. Likewise, limited production and high cost make the use of stainless steel, which would substantially reduce the steel weight in a building, inadvisable for plant construction.

Generally speaking, until postwar research has had a chance to function, interest in building materials for the present will probably be focused more on the scarcity of standard materials than on the introduction of new ones.

2. Building Design. Though plant structures themselves are undergoing changes in the features of basic layout, there are no major changes indicated in structural design as applied to industrial buildings.

The possibilities in rigid frame structural design are being increasingly recognized. This design, unknown 10 years ago, has proved a method for producing a clearer-cut building, say some engineers, and in some cases, a more economical one from a point of savings in steel. They, too, confirm a trend toward wider column spacing, but are subjecting design and spacing to functional influences of machinery size and weight and the process requirements. The rule in design generally followed is: "The quicker you can get a load to the ground, the more economical your operations."

New plants of both windowless and daylight types, and some that compromise the advantages of each type by use of flat roofs instead of monitors, are being designed. Decision as to which type is best seems to rest principally on considerations of (1) cost and economy of operating the building and its service equipment, (2) the psychological effect upon employees, and (3) the nature of the processes.

In concrete work, the use of higher strength mixes is reported. Where

building appearance is a consideration, plywood forms are sometimes used, with the form panels arranged systematically to give a pleasing effect, even if the joint lines should eventually be discernible. Forms can be removed early and the concrete surfaces rubbed with carborundum stones, then painted with portland cement paint.

Plant Service Equipment. Choice of equipment for heating and ventilation is being essentially influenced by the type of design of building—whether monitor type, with solid roof, or the completely enclosed windowless type. In the latter case, these functions are an integral part of the air-conditioning system.

In general, the trend for heating conventional buildings is by ceiling-type unit heaters, or projection-type unit heaters mounted above the bottom chord of the roof trusses, flowing warm air toward the floor. These units use low-pressure steam. In most instances air diffusers of some kind are used, to aspirate the room air and prevent hot blasts at localized points. Usually thermostatic controls are employed, and provision is made also to permit operation of fans in summer for ventilation.

To prevent cold drafts on employees stationed near large window areas, steel-finned type radiation is being placed immediately under these areas. It is said to save floor space, and to simplify the condensate return problem, because high-pressure steam can be used.

Methods for ventilating industrial plants have shown little change, but there has been considerable improvement in the equipment available. For heat removal, power ventilation with motor-driven fans is gradually replacing gravity systems with vented monitors on the roof. Although of higher

initial cost, this method assures positive displacement that can be regulated for seasonal requirements.

More plants are now requiring filtered air to prevent product contamination, and also to provide for dust removal in the recirculation systems. In certain systems built-in underfloor air ducts are made to supply air at required points in the center of the building.

Small spaces, such as offices, recreation rooms, locker rooms, and wash-

rooms are sometimes heated by small convector-type units or cast-iron radiation, and are separately ventilated. However, these methods are not adaptable to any later change to air conditioning. For this reason, combined heating and ventilating duct systems which are adaptable to later addition of conditioning units are becoming more and more popular.

Factory Management and Maintenance, April, 1946, Part 2, p. B-70:10.

Does Overtime Pay?

UNLESS fixed overhead costs are so large as to offset the increased labor cost due to overtime and lower efficiency, many industrial plants will find that the return to the 40-hour week will bring about a substantial reduction in unit labor costs—because of the elimination of overtime premiums and the greater output per employee-hour. This condition, according to results of studies made among industrial plants in the last two years by the Bureau of Labor Statistics, appears likely to determine the efficiency of longer workweeks for employees.

The experience of the Cleveland Graphite Bronze Company illustrates the general experience of establishments surveyed. The performance of 311 workers on identical operations for the year of 1943 was studied. Final tabulations showed that approximately three hours' added output was obtained for every five additional hours of work, and that it cost the company two hours' pay for each hour's additional output under the longer hours.

Of the 311 operators studied, 263 were women. Total employment of the company at the time was approximately 6,000. The work consisted of man-paced machining operations on rela-

tively light pieces of metal with little resting time for employees during the machine operations. In other words, speed of operation was determined by efforts of operators rather than by speed of machine.

Since proper working conditions are important in promoting good worker morale and effective production, this company was a good subject for study. The buff and glass brick plant buildings are attractive; grounds are pleasantly landscaped. All departments are housed on a single floor and the air in the windowless buildings is filtered and washed. Ceilings are sound-proofed and floors are of treated wood blocks. Lighting is excellent; the machine tools are painted, and a good accident prevention program is in effect. A large cafeteria serves good food at or below cost and coffee wagons circulate throughout departments in the morning and afternoon. Industrial relations were found to be satisfactory to both labor and management. Free medical examinations are provided at the employee's option. Workers may go to a credit union for loans.

The company's incentive method is one under which piecework is not used as a wage incentive but under which

workers are required to reach and maintain specified production levels in order to be in a specified wage bracket. These production levels are fairly "tight." A placement and advancement program has 30-odd job classifications, each having a starting rate, qualifying rate, and a standard rate. The employee's wage rate increases automatically as his output proficiency increases. Raises beyond minimum levels depend on merit and length of service.

During the first five months of the year, operations were carried on by three shifts of $7\frac{1}{2}$ hours each for six days per week. (Shifts were eight hours but one-half hour was allowed for lunch.) A change was then made to two shifts, raising daily hours to $9\frac{1}{2}$ except on Saturday when the day shift worked $7\frac{1}{2}$ hours but the night shift kept the $9\frac{1}{2}$ -hour schedule. Weekly hours were raised, therefore, from 45 to 55 for day workers and from 45 to 57 for night workers.

Results showed a decrease in efficiency of about 5 per cent—i. e., the average output per worker was 5 per cent less for each hour worked than it had been under the shorter workweek schedule. Efficiency of the 159 operators on the night shift suffered more than that of the 152 day operators. Against a decline of 3.5 per cent for the day shift, efficiency for the night shift dropped by 6.5 per cent. Although, for no accountable reason, male operators' efficiency on the night shift actually increased a little, that of female operators dropped by 8.7 per cent. Efficiency decline of female operators on the day shift was only 3.1 per cent.

Against an absenteeism loss of 2.7 per cent under the shorter workday, the rate under the longer schedule was 4.2 per cent. This rate, however, compares well with experiences of most of

the other plants surveyed and probably reflects successful efforts on the part of the company to curtail absenteeism.

Although surveys made in other plants engaged in heavy, hot work showed definitely that longer hours did not increase output—and sometimes even resulted in an output level below that which obtained under the shorter workday—hours at Cleveland Graphite Bronze Company had not been pushed to such limits and work was relatively light. The combined result of lowered efficiency and higher absenteeism was an increase of 15.8 per cent in output for an increase in weekly working hours of 24.5 per cent. Roughly, then, three hours' additional output was obtained for every five additional hours of work.

From a cost angle the comparison was less favorable. If the hours for the two shifts are averaged to 56, then the hours paid for (taking into account the time and one-half paid for hours above 40) come to 64. This represents an increase of nearly 35 per cent over the former pay for 45 hours. Allowance for pay lost because of absenteeism cuts this figure to about 32 per cent. In the final analysis, therefore, it cost the company two hours' pay for each hour's additional output under the longer hours.

Some of the studies made by the Bureau of Labor Statistics indicate that workers did better under a longer workweek than they formerly had done under a shorter workweek and that the increase in output at times more than offset the increased cost. That result, apparently, is directly chargeable to low production requirements under standards which apparently were too loose and consequently did not require the workers to do their best. Under the impetus of war morale and the necessity for very much larger output, some

plants found it possible to step up their output very appreciably. This type of result is possible only when the work itself is not so fatiguing that the length-

ening of hours in itself brings about a marked reduction in efficiency.

By MAX D. KOSSORIS. *Mill & Factory*, March, 1946, p. 122:2.

Bureau of Standards—Adviser to Industry

WHILE the Bureau of Standards of the Department of Commerce was not created to solve the production and materials problems of any individual manufacturer, there isn't an industry in the country that hasn't benefited tremendously from the Bureau's work—even though the benefits have trickled down indirectly and their source is usually unidentified.

To understand its role as adviser to industry, let us consider the primary purposes of the Bureau of Standards and its methods of operation.

The Congressional act by which the Bureau was created in 1900, and which has never been amended, gave the Bureau authority to do nothing but determine standards and physical constants for use by federal and state governments in scientific investigations, engineering, manufacturing, and commerce. But research in the development of standards has produced, as its by-products, scientific and technological innovations for the benefit of all of modern industry.

For example, the metal bar which is the granddaddy of all yardsticks expands and contracts with temperature changes. So the Bureau studied the expansion properties of metals and alloys and learned more about this subject than the world had ever known.

People were having trouble with dental inlays and metal tooth fillings. Somebody wondered whether the rate of expansion was the cause. So the American Dental Association studied Bureau findings and financed a re-

search project. Its men worked with Bureau scientists. Result: far better dental amalgams today than were thought possible a generation ago.

The Bureau never engages in pure research just to see what may be learned, however fascinating the subject may be. Everything it does is for the purpose of solving a specific practical problem. However, the Bureau is not at all aloof to problems of industry. It is authorized to determine physical constants and the properties of materials "when such data are of great importance to scientific or manufacturing interests and are not to be obtained of sufficient accuracy elsewhere."

Besides government work, the Bureau may—for a fee—exercise its functions for "any scientific society, educational institution, firm, corporation, or individual within the U. S. engaged in manufacturing or other pursuits requiring the use of standards or standard measuring instruments." But the Bureau won't compete with private laboratories and won't do research to help a manufacturer make a more salable product.

It will make four types of investigations for non-governmental agencies. To promote uniform standards, it will compare laboratory standards and instruments with the national government standards. For example, a manufacturer of thermometers can hire the Bureau to test his product for accuracy.

It will make routine tests of mate-

rials and devices to determine compliance with specifications, provided funds and facilities happen to be available. Such tests are made for private industry only when no commercial testing laboratory has adequate facilities.

Referee tests or investigations are made, on invitation, to settle disputes where private labs are unable to agree on methods of testing or interpretation of results.

The fourth type is cooperative investigations, and that is of greatest value to industry. It is the basis of the famous "research associate plan" under which outside agencies hire their own scientists to work in and with the Bureau. It is the chief link in translating basic discoveries into manufacturing practice, but it has limitations.

The project must be one in which the Bureau itself is interested and wants to get more information. It must be one on which not enough data are known and the results of the investigation must promise to have wide application. Second, the research associate sponsor must promise to make results available to the government and the public. For these reasons virtually all research associates have been supported by trade associations representing an entire industry.

Almost 100 research associates are now at the Bureau, paid by some 15 trade association groups. These research associates are under complete control of the Bureau and operate just as though they were civil service employees, though they may get several times as much pay. They work with Bureau men, using Bureau facilities and equipment. This is truly government-industry cooperative research. Results are public property.

Advantage to industry is that it gets a chance, by paying the bills, to have the Bureau work on problems which

it wants solved. The government benefits because it makes use of the results of the research paid for by industry.

There is still a missing link, in the minds of some people, between results of the Bureau's research and the practical problems of an individual manufacturer.

For example, suppose a machine manufacturer has trouble with a certain bearing burning out. Probably the answer to his problem is in the published papers of the Bureau of Standards. He can write to the Bureau and get lists of all published papers on this subject, which he can purchase for only a few cents each. He may also correspond with or visit Bureau experts and research associates and obtain much advice. But he can't send his machine to the Bureau to have a new bearing or oil-feed system designed.

That doesn't mean that the Bureau is not interested in every-day problems. It used its wind tunnel to test a model of the Empire State Building to see what would happen in high winds. It showed the National Radio Relay League how to eliminate static. It devised building ventilation systems for the American Society of Heating and Ventilation Engineers. It devised better methods of washing clothes for the Laundry Owners Association.

But each one of these, and thousands more, met the Bureau's requirement that the investigation be in a new field, that it promise to add to the nation's store of knowledge, and be of wide commercial application. In every instance the research had something to do with standards, even though the connection may have been a bit remote.

The Bureau constantly strives to make its findings of value to the average citizen. Many of its publications

are in non-technical language and sum up scientific findings and general knowledge on some popular subject, such as protecting clothes from moths, preventing home fires, etc.

The Bureau knows the composition and properties of almost everything as a result of its tests of government purchases, but it would get into all kinds of trouble if it advised people to buy brand "X," avoid "Y."

After a series of tests on competitive products, it will tell manufacturers how each sample stood up, and will tell each manufacturer which sample was his. But it won't identify the other brands in the test. This permits producers to compare their products with

others and thus to improve their quality. Yet producers can't advertise that the Bureau of Standards "endorses" a product for the public to buy.

A little over a decade ago the Bureau began to concentrate on what was to become one of its most important undertakings—its simplification program. This is concerned with reducing the number of varieties of almost identical products on the market. The idea grew out of the Bureau's work on standardizing such parts as screw threads for nuts and bolts—a project which has saved American industry millions of dollars.

Modern Industry, March 15, 1946, p. 156:8.

Incentive Plan in a Repair Shop

WHEN industrial workers know that an incentive plan is fair they prefer to be paid on the basis of work done rather than time spent, since the former plan gives them an opportunity to earn more money.

Incentive systems of all types have been widely used in production work where the factors affecting any particular job are known in advance and where it is easy to measure the work turned out by an individual. In the factory of The Lincoln Electric Company a straight piecework incentive system has been in operation for many years in all production departments. In some departments, however, such as the repair department, die setting, and tool making—where there is an extremely large number of different kinds of jobs, with large variations in the time required for each job—the men had been paid on an hourly basis, and received, in addition, the year-end

bonus, based on over-all results, which is shared by all workers in the factory.

After considerable experimenting over a period of years, however, an incentive plan has been successfully developed for the repair department.

To the repair department, customers send old Lincoln machines for reconditioning, or damaged machines for repairs. Over a period of years several hundred different welding machine models have been produced, and the reconditioning work necessary on any single type of machine may vary as much as 100 per cent. With this tremendous diversification, it appears that it would be almost a hopeless task to set up a proper day-to-day incentive plan.

Several years ago a straight piecework incentive plan was set up for the repair department and given a thorough trial. It failed primarily because of the unsatisfactory relations it developed within the repair department itself.

In the repair department, which is relatively small, there was a great deal of equipment which is used in common by all the repair men. Such items as grinding wheels, hoists, and special tools are used constantly by the entire department. In the piece-work system which has been set up, individual piece-work prices were set on each of the various operations required for repairing a machine. This meant that there was constant friction among the men in the department to get at and use the tools.

This old straight piece-work incentive system had another disadvantage in that the final tester, who had to check and approve the work of all the men in the department, was also on piece-work. Since all production employees must guarantee their own work, there were constant arguments about whether minor adjustments should be made by the final tester or should be returned to the worker to be adjusted on his own time.

It became obvious that some plan other than straight piece-work had to be devised, and in the interim between the failure of the piece-work plan and the instigation of the new plan, straight hourly rates were paid for all repair work. A careful analysis of all the various jobs which had come into the repair department during previous years was made. Experimental piece-work prices were set up for the various jobs. It was then decided that the new incentive plan was to be checked on a four-month trial period without its actually being put into operation. It was agreed between the men in the repair department and the methods and time-study department, that a fair system could be set up only if all cooperated fully during the period. The repair department men agreed to put all their energies to work to turn out

each job in the shortest possible time, and it is interesting to note that during this period production records were broken. The repair men expected fair play and knew they would get it if they did their part.

The actual plan was a simple one. It eliminated all the undesirable features of the straight piece-work system, and at the same time gave all the men an incentive to do a much better job.

At the time the plan was initiated, all the men in the repair shop were being paid on an hourly basis at a rate set by job evaluation for the kind of work they were doing. Under the incentive plan, men were still paid their old hourly rates, but in addition, were given a bonus when they accomplished a given amount of work in less time than was previously required. The basis of comparison was the quantity of work formerly performed on an hourly basis.

The incentive plan was set up to cover monthly periods and, in general, operated as follows: As mentioned previously, piece-work prices for the repair of each of the different models of welding machines were set up. These piece-work prices were for standard repair jobs, and included the following operations:

1. Preliminary check.
2. Disassembling and cleaning all parts.
3. Repairing or replacing parts—whichever is less expensive.
4. Getting parts from stock.
5. Assembling, completing, and painting.
6. Final test and inspection.

The price set up, however, covered all these operations, and no individual piece-work prices were set for any single operation. Thus the whole department would earn the given piece-

work price when the machine was completed and turned over to the foreman.

The piece-work prices were also the basis for computing repair charges to customers, thus allowing for consistent pricing on the repair of similar models irrespective of variations in the time required for the repair of a particular machine.

A job record was kept on each machine repaired and the total hours devoted to that particular unit were charged to the repair department. As the repair was completed, the piece-work price applying to that unit was credited to the repair department. Thus at the end of the month, there were a number of charges and credits to the department. The difference between the total charge for the hourly rates accumulated against the department and the credit, which was the total number of units completed, times their respective piece-work price, was the "net pool bonus" or "bonus incentive" and this was split equally among the men in the department, according to the number of hours they had worked during that month. This was split equally, regardless of the variations in hourly rates of the individual men in the department.

It was this equal split, according to hours worked, that made the difference between this incentive plan and the straight piece-work plan which had originally failed. This division of the "net pool bonus" was requested by the members of the repair department be-

cause they felt that since they were all using common equipment, the total ability of the department to turn out a given repair job was as dependent on one man as on another. A man getting 80 cents an hour could tie up or speed up the use of a hoist just as easily as a man getting \$1.00 an hour and, therefore, in terms of the total "net pool bonus" at the end of the month, was entitled to a split on a share-and-share-alike basis, depending on the number of hours worked.

During the first months of the trial period, the piece-work prices for the machines were adjusted in a few cases in order to eliminate what appeared to be inequities, but in no case were prices lowered. Since the prices have been adjusted, there has been no case in which the credit based on piece-work prices has been less than the charge based on the hourly rates, and this has meant that there has been a substantial "pool bonus" to split every month. If it happens that the charge is greater than the credit, then the men would be paid only their straight hourly rates.

It is interesting to note that since the plan has been in operation, production records have continued to be broken and the department is repairing more machines per month than it ever has before. Also, each man in the department is earning more money than he had prior to the installation of the incentive plan.

BY LEONARD GILES. *Mill & Factory*, March, 1946, p. 118:2.

Wage Structure in the Machinery Industries

PLANT workers in the machinery industries had straight-time earnings averaging 98 cents per hour in January, 1945; the men's average being \$1.01, and that of women, 81 cents. In general, the pay was highest in large establishments, in large communities, and in unionized plants.

—*Monthly Labor Review* 2/46

Marketing Management

Tomorrow's Supermarket

THE plans of the supermarket industry, and food retailers in general, for the immediate future seem destined to revolutionize consumer shopping habits. They will challenge the best minds in advertising and promotion and keep research departments of manufacturers and advertising agencies busily occupied with new and improved packages and packaging, new copy appeals, and new sales approaches.

Two trends in the plans of the supermarkets are especially evident in the programs thus far outlined. First is the rapid extension of self-service into fields heretofore not considered adaptable to self-service. Most significant of these is the complete self-service meat and delicatessen department, which may revolutionize the entire meat retailing business. Another important trend is the expansion of the super food markets to furnish a wide variety of household goods—wines and liquors, drugs and cosmetics, and numerous other lines which are proving readily adaptable to mass retailing.

In the short span of virtually a decade, the supermarket has been able to alter the food buying habits of the country and to give promise of changing retailing customs in many other fields. Though the supermarkets represent only 2.6 per cent of the total number of retail food stores, they have been able to capture more than 30 per cent of the nation's \$13,000,000,000 retailing food volume in 10 years and, to gain as their customers more than half the nation's families.

How far will the supermarket operator actually extend the self-service

idea? According to a recent survey, the entire system of self-service will be completely revolutionized. As soon as possible, 64 per cent will convert their meat departments completely to self-service; 70 per cent, their delicatessen departments; 84 per cent, their produce departments; and 94 per cent, their dairy departments.

The non-food departments will undergo the same transformation. Drugs, hardware, household equipment, and wines and liquors will be on a self-service basis in a great majority of the supermarkets throughout the country.

The significance of this trend for the advertising agency and the manufacturer is that self-service is not only accepted but preferred by the growing majority of American women. In food retailing it is evidenced by the sales figures. Since 1941, the sales volume in the supermarket has increased over 30 per cent—a tremendous increase in view of the merchandise and labor shortages confronted during the war. Surveys indicate that the consumer is now converted to the idea of self-service. She likes the idea of leisurely wandering about the store, handling the goods, appraising them. She doesn't want clerk interference or influence. Sometimes she is sensitive about her buying, and self-service permits her to buy as much or as little as she wants. If she prefers the lower-priced item to the higher, that is entirely her affair. In other words, it is a highly satisfactory and even flattering way of shopping—because the customer consults only herself.

The extension of self-service in food retailing is already affecting the output of numerous related industries. Self-service is forcing changes in all types of packages. Heretofore, when the clerk did the selling job, the package was responsible for only a small part of the appeal. Today the package plays a greater part in selling. In the super-grocery department, where 2,000 or more items compete for the customer's attention, the package is the only salesman. First, it must stop the housewife. Then, after she has taken it into her hands, it must sell itself—by informing her of all the good things about the contents, and better still, picturing the contents temptingly.

Thus, color and glamour become very important and may be expected in postwar packaging. Also, the label (including the description of the contents, instructions or suggestions for use, weight, utility, and clear price marking) must become a sales talk to induce the housewife to choose an item from some 2,000 or more other articles on the shelves and the floor displays. The advertising agency must be prepared to develop new and improved techniques in packaging and packaging methods. Also, an important educational role is to be played by them in presenting new copy appeals and sales approaches. In this connection, it is interesting to note that 39 per cent of the supermarket shoppers are men. The supermarket is far more a family buying center than was the corner service food store. This should be borne in mind by the copy writers who are directing consumer appeal copy: The appeal should be directed to all members of the family.

Since self-service for perishable food products is an inevitable development, pre-packaging material becomes paramount. In order to self-service foods

of this character, it is necessary that they be packaged not only in a highly attractive manner, but also so as to preserve their perishable content. A special type of transparent film has been developed for fresh meat packages; it has a controlled degree of moisture permeability, yet permits just enough moisture to escape to prevent fogging. This keeps the package clear and enables the customer to view the contents.

While much still must be done to perfect the technique of pre-packaging self-service meats before they can be given to the customers in foolproof packages, this development already can be foreseen as the greatest advance in meat retailing in the past 50 years. Those conducting the experiments now believe that pre-packaging can reduce the cost of meat selling by as much as one-half, and greatly increase meat volume consumption. The meat packers, refrigerator manufacturers, and cellophane producers are all vitally interested, and are studying carefully the future roles they will play in this new development.

For the supermarket operator, tempting packaging is of paramount importance because the impulse sales value of the inviting package is one of the major factors in his high sales volume. One survey indicates that 75 per cent of the women shopping in food stores buy one or more items on impulse; and 50 per cent buy one-third of their purchases on impulse. Two-thirds of the items bought on impulse are purchased because they are attractively displayed and 29 per cent because they are in transparent packages. Thus mass display and pre-packaging are essential in the postwar development of the supermarket.

What will tomorrow's supermarkets be like? Some of them will occupy as

much as 25,000 square feet, which is equivalent to the size of 25 average service stores. The majority, however, will be from 5,000 to 10,000 square feet in size. Forty per cent of them will be in the large cities, 40 per cent in the urban centers, and 20 per cent in community developments.

They will be extremely modern in design and construction. Some of the best known architects who have specialized in industrial design will lay out

the plans for these markets. Some markets will be a part of an entire community development, with other important shopping centers located around them. Most of them will have handsome parking lots, landscaped with shrubbery, with playgrounds to occupy the children while their mothers are shopping.

By M. M. ZIMMERMAN. *The Journal of Marketing*, April, 1946, pp. 384:5.

Use of Sales Training Props

At most training meetings one or all of the following props are used—a sound slide film, a set of charts, the product, a quiz, and a meeting guide or outline. However, it must be kept in mind that maximum value can be gained from the use of training props only if they are integrated so that each does its part in telling the sales story.

Experience with the use of sound slide films indicates that the attention of the trainees is best maintained when the narration is broken up with questions. Further, the effectiveness of the sound slide film is increased if a production of, say, 30 minutes is divided into a number of short sequences. Short doses seem to offer better training possibilities. For example, the opening sequence may be five or six minutes long, dealing with the parts of the product and how they operate. Then instead of going on to another phase of the sales story, the film should be stopped and a lecturer should go over this material with his charts, his demonstration material, and his quiz. The change from one form of instruction to another helps keep the audience alert and interested, and concentration on one phase of the

sales story at a time, through various forms of presentation, heightens learning.

Any film presentation is worth a talk before the showing. It should have an introduction. And that introduction should tell the audience what it is going to see and hear. It is this introductory talk that makes the film a definite part of the meeting—not merely something that has been dragged in. Further, after the film is finished it should be discussed.

The following are some pointers on using charts, product samples, quizzes, and meeting guides as effective sales training props:

I. CHARTS. There are a number of factors that must be considered in making effective use of charts:

1. Keep the charts covered.
2. Don't let the audience read them and get a half-baked idea of what you want to tell them.
3. Stand by your charts as you talk. Even though you don't stand in front of them, if you stand too far forward the people at the side in the front row can't see.
4. Get enough light on them. Use a spotlight if necessary. And then don't stand in the spotlight so that your shadow falls on the charts.

5. Don't study your charts or turn your back on the audience to read them. How many times have you seen a demonstrator do that? Become so familiar with them that at a glance you will know what you want to say about each.
6. Don't use the same introduction to each chart such as, "This chart is supposed to show—" Practice using your charts.
7. Study your charts beforehand, not before the audience.
8. Make pencil notes on your charts to remind you what you want to say about each. Make the notes so small that the audience can't see them, but large enough so that you can.

II. PRODUCT. Now let's talk about your product as a meeting prop. There are certain rules for handling your product which should be followed in any training procedure. These are:

1. *Handle it as if it had value.* You have seen the valuable jewel displayed in the showcase by itself, spotlighted on a plush background. Put a lot of that into the handling of your product for a training meeting.
2. *Don't deprecate.* When you set out to demonstrate how the product operates don't say, "I don't know whether or not this will work." If you have any doubts, how can you expect your audience to believe you?
3. *Don't make fun of your product.* Most of us have seen meeting leaders get a lot of laughs by kicking the product around in front of a group. The salesmen may have enjoyed the show, but the product didn't get the break it should. Always treat your product seriously and with respect. You should. It's your bread and butter.
4. *Handle it easily.* Make everything you do to that product of yours look easy. If you are demonstrating, practice the demonstration until you have it letter perfect. Never admit, "This is supposed to do so and so, but I've never worked it before."
5. *Make the best possible display.* Pose your product on a platform where everybody can see it. Put spotlights on it so that its good points are brought out. Give it a good background and see that there is nothing behind it to steal attention from it.

6. *Avoid confusion.* Don't show too many models and don't talk about too many printed pieces. An overly-wide variety of props makes for confusion in the minds of the audience.

III. THE QUIZ. Now let's talk about the fourth element of the meeting—the quiz. A quiz can check on what the audience has retained, review the important points, repeat the sales points over and over, and outline your entire meeting.

There are many types of question and answer sessions that can be used effectively. Here are a few of them.

1. *Questions from the floor.* This is the simplest form of question and answer. The speaker finishes his prepared talk and asks for queries from the audience.
2. *The prepared question.* In this plan the speaker gives out some prepared questions beforehand to the men in the room. Then when he finishes and asks for discussion, these questions are used to start the ball rolling.
3. *Questions by the lecturer.* Here the leader of the meeting has a list of questions he asks at the end of the sessions. These questions can be assigned in the order of seating or the leader can call upon volunteers for replies.
4. *The questionnaire.* Questionnaires can be distributed at the end of a meeting and the men asked to write the answers on the questions.
5. *Card quiz.* The audience can draw cards on which there is a question. If the man who draws the question can answer it, he does; if not, the question is open to anyone else in the room.
6. *True or false.* This is simply a sheet on which a number of questions are printed and a little space left open at the side so that the respondent can check whether the question is true or false.

On the question sessions rewards can be given for correct answers. However, these should be used in moderation; small rewards are just as effective as large ones in getting audience response.

IV. MEETING GUIDE. In making up your guide, give some thought to its usability. If you have a number of pages, put them on a three-ring binder or some other such arrangement so that they will lie flat in front of you.

Any meeting guide prepared for the leader's use should contain adequate notes. These should be chiefly in the nature of suggestions and instructions. The field training men know a good idea when they see it, and do not need to be ordered to use it. Further, if they don't think the idea is good they won't be able to put conviction into it.

There are many ways in which you

can clinch the instructor's use of the props. The writer's company did that recently in a series of meetings by providing true or false quizzes to be given every 30 minutes. The trainer had to cover each point listed in the quizzes. This meant that he had to do a thorough coverage job. He couldn't skip around and he couldn't leave anything out, for if he did it would show up in the results of the quiz. As a consequence, every point was adequately covered.

From *How to Run a Sales Meeting*. By Edward J. Hegarty. (McGraw-Hill Book Co., New York, N. Y.)

Buying Preferences of the American Housewife

SEVENTY-SEVEN per cent of all women purchase the bulk of their food requirements in one store, according to a recent study conducted by the Home Makers Guild of America to determine the buying preferences of the American housewife. However, while the one-stop store is the first choice for most of her purchases, Mrs. America does shop around.

For the purchase of groceries and staples, most women prefer the supermarket or the neighborhood grocery, with the former slightly favored. For meats, the neighborhood grocery is first choice, the specialty meat market next, and the supermarket third, according to the survey.

The majority of women like to purchase their fresh fruits and vegetables in the supermarket, but the neighborhood grocery and the specialty fruit and vegetable store attract a considerable number as well.

In addition to preferring certain types of stores, Mrs. America also has a favored time for her shopping. A majority of all home makers have a regular day of the week on which they purchase most of their weekly food requirements.

The majority of city housewives buy their supplies on Friday, with Saturday the second most popular day. Rural housewives reverse this order, most of them preferring Saturday.

Nearly 75 per cent of all food buying today is on a self-service basis, with the majority of home makers reporting that they favor this type of service because they want to make their own selection and like to see what they buy.

The survey shows that 59 per cent of housewives refer to advertising in preparing grocery lists, and that Thursday is the day they want this information. One-half of this number show interest in price information, while the other half used advertising to help plan meals. Seven out of ten housewives follow a basic planning pattern for estimating caloric, mineral, and vitamin content of meals, and are interested in information which will help them in this planning.

—*Packaging Service* 2/46

- THE NEW YORK REGIONAL OFFICE of the War Assets Administration, 70 Pine Street, New York City, is currently accepting informal offers on many categories of containers and packaging materials from commercial and industrial users on all trade levels. The items include boxes, crates, cases, fiber and chipboard cartons, chests and tubes, both wood and metal, usable for many purposes. A catalog giving complete information on this container program is being distributed to those who have expressed an interest in making offers.

Financial Management

Eight Ways to Raise Money

EVERY business man ought to be familiar with the principal sources of working capital. It is true that the selection of the one best lender in each field requires expert guidance, but what the sources are, and the limitations and advantages of each, should be known to every president, treasurer, and controller, as well as every manager-proprietor. These sources include: (1) commercial banks; (2) life insurance companies; (3) general insurance companies; (4) investment trusts; (5) investment banking underwriters; (6) Reconstruction Finance Corporation; (7) commercial finance companies; and (8) the company's own stockholders. The following facts about these eight sources are offered for the guidance of the executive who seeks additional capital for his concern:

1. *Commercial Banks.* Banks have changed their lending philosophy markedly in recent years. Formerly, they held it not to be their province to furnish investment capital. They wanted short-term loans of three or four months' maturity. Today they are accepting loans for five and even 10 years.

Bank loans enable the borrower to concentrate the loan in one place and to get the money at low initial and recurring cost. Usually banks lend on assets. The banks which make long-term loans give due consideration to earnings, but none of them lends largely on prospects. Dealing with banks eliminates the SEC filing expenses and stock exchange reports. The bank may ask for representation on the board if the loan is a large one. Banks usually require rigid restrictions on working capital and dividend pay-

ments where long-term loans are made.

2. *Life Insurance Companies.* To secure capital on the best terms from life insurance companies, it is essential to know the requirements of the state laws under which they operate and the investment philosophies of the various companies. For example, one of the world's largest life insurance companies followed the policy for many years of making no farm loans, while other equally successful life underwriters had the highest percentage of their investments in farm mortgages.

Life insurance companies organized under the laws of New York State seldom buy preferred stocks (except in the case of certain utilities). Yet New England and New Jersey companies frequently purchase preferred shares. There are a few states in which life underwriters may buy common stocks, but these are the exception.

The sale of securities to a life insurance company concentrates the loan in one place and usually results in fairly low initial and service costs. There is no SEC filing, no special stock exchange statements to be made, and insurance companies do not demand a place on the board or any "finger in the management pie." It must be remembered, however, that a life insurance company lends on assets only—not on earnings or on prospects.

3. *General Insurance Companies.* The general insurance companies (fire, liability, compensation, etc.) are able to buy types of securities which life insurance companies cannot purchase. Their portfolios contain common and preferred stocks. Many of them, however, follow the policy of not buying

stocks unless an outside market has been established, which means, of course, that an entire issue cannot be placed with such insurance companies.

As in the case of the life insurance companies, it is necessary to know in detail both the state laws under which the companies are organized and their general investment policies, to determine which ones are eligible for any particular loan.

4. *Investment Trusts.* There are several types of investment trusts. Some of them are hedged about with numerous limitations on the percentage of their capital which they can invest in any one company, or on the percentage of any single issue which they can buy. On the other hand, there is at least one large investment trust which takes an opposite view; viz., it prefers taking a deferred equity position—coming after the bankers and bondholders. It then takes an active interest in the company which is financed, aids it with counsel and statistical advice, with the view that the long-range profits will be larger for it than if it had taken a more nearly riskless position in the first place.

It is necessary to know the types and policies of these investment trusts in order to judge their availability as a source of capital for any particular company.

5. *Investment Banking Underwriters.* Because of the widespread information which already exists, little need be said about the investment banker, except that many houses have their specialties—some specialize in government, state, and municipal securities; others feature corporation bonds; still others are specialists in common stocks.

6. *Reconstruction Finance Corporation.* The Federal Government has

provided two sources of capital for ordinary businesses. Each of the 12 Federal Reserve banks is authorized to make industrial loans. A number of legal restrictions, however, especially in regard to maturity, have made these loans so unattractive that very few have been made.

The Reconstruction Finance Corporation has a broader authority for supplying capital to ordinary businesses and can use its own judgment in regard to loan provisions in a greater degree. The law specifically states, however, that RFC loans must be restricted to cases where private capital is not available at reasonable rates. Since private loans are almost always available for sound borrowers, the RFC has done little financing of ordinary businesses on its own. In many cases where banks have been reluctant to assume the entire risk of a particular loan, the RFC has shared the risk by participating in the loan. These "participations" represent the bulk of RFC industrial financing.

7. *Commercial Finance Companies.* These establishments are a new factor in the long-term corporate capital field. Formerly their funds were practically 100 per cent invested in installment paper arising from the sale to consumers of motor cars, trucks, and household appliances. With the decline of installment buying, a portion of their funds were used for awhile to purchase corporations showing unusually attractive earnings. At present they are more likely to be a source of capital for smaller companies than for larger ones. With the return of peacetime sales operations, it seems likely that their available funds will be reemployed in installment financing.

8. *Company's Own Stockholders.* This is a source of capital often overlooked. Sometimes without changing

relative equity positions, and upon especially favorable terms, all the needed capital can be secured from the stockholders who are familiar with the com-

pany's needs and who have confidence in its management and its future.

BY CLINTON DAVIDSON. *American Business*, March, 1946, p. 34:2.

Tax Benefits for Foreign Trade

AS PART of a program to help U. S. companies compete on more equal terms with foreign corporations, and to encourage foreign commerce, the law grants special limited tax benefits to corporations engaged in certain restricted areas of foreign trade. Where a company does both domestic and foreign business, it may not be able to qualify for the special benefits if it operates as one unit. However, if the foreign trade branch of the company is separately incorporated, at least a portion of the business may receive the tax benefit. A partnership may also follow this procedure by incorporating a section of its business.

Small companies, as well as large corporations, can take advantage of these special benefits. It is not always necessary to have branches and offices abroad in order to qualify. The advantages to be gained, as described below, are substantial enough to make it advisable for all companies that have more than a nominal amount of foreign trade to investigate the possibilities of qualifying for one of these exemptions.

A corporation, separately organized for the purpose of obtaining tax benefits that accrue to corporations engaged in foreign trade, could technically be stripped of these benefits under the 1943 provision aimed at "shell" corporations. However, the Treasury has specifically advised that any corporation which qualifies will get the benefits afforded a Western Hemisphere Trade

corporation, even though the principal purpose in organizing the corporation was to obtain these tax benefits.

The so-called Western Hemisphere Trade corporation is exempt from surtax. To qualify for this exemption, a corporation must be able to show that:

1. All its business is done in North, Central, or South America, in the West Indies, or in Newfoundland.
2. At least 95 per cent of its gross income for the three-year period immediately preceding the close of the taxable year (or for the part of the period during which the corporation was in existence) has been derived from sources outside the U. S.

3. At least 90 per cent of its gross income for that period has been derived from the active conduct of a trade or business.

There are special tax benefits for a second class of domestic taxpayers engaged in foreign trade. Those who qualify need include in gross income only the income from sources within the United States. But note that all amounts received in the United States must be included in income regardless of the source. These are the conditions which must be met:

1. Eighty per cent or more of the gross income for the three-year period immediately preceding the close of the taxable year (or the period during which the corporation was in existence) was derived from sources within a possession of the United States.

2. Fifty per cent or more of its gross income for the same period was derived from the actual conduct of a trade or business within a possession of the United States. For an individual, the trade or business can be either on his own account or as an employee or agent of another.

Since all income received in the United States will have to be included in gross income, taxpayers who qualify will probably have to keep offices outside the country to obtain any benefits under this section.

The third type of business qualifying for special tax benefits is a corporation organized under the China Trade Act of 1922. These corporations can usually avoid all U. S. taxes by paying dividends of not more than 38 per cent of their taxable income. Here's how this works out:

These corporations are allowed a special credit against taxable net income of an amount equal to the *proportion* of the net income derived from sources within China which the par value of the shares owned on the last day of the taxable year by persons resident in China, the United States or possessions, plus individual U. S. or Chinese citizens regardless of where resident, bears to the par value of the entire number of shares of the corporation outstanding. In other words, if the entire income were derived from China and all the shares were owned by U. S. citizens, then the credit allowed would equal the taxable income of the corporation.

However, there is one limitation—the *saving in tax* cannot exceed the amounts of dividends paid to stockholders of the type mentioned above. Thus, if the corporation had a taxable income of \$100,000 derived from China, and was entitled to a full credit

of \$100,000, it would be saving a normal tax and surtax of \$38,000. In order to qualify for this saving, it would have to pay out \$38,000 in dividends. If it paid out only \$25,000, then it would have to pay a \$13,000 tax.

An additional benefit is given to U. S. citizens who are residents of China. Dividends received by them from China Trade Act corporations are fully exempt.

If business is to be carried on entirely or primarily in foreign countries, organization of a foreign corporation may be advisable. If a foreign corporation is also engaged in trade or business within the United States, it will be taxable—in the same manner as a domestic corporation—on that part of its income derived from sources within the United States. However, if it is *not* engaged in trade or business within this country, its only federal tax will be a flat rate of 30 per cent of fixed or determinable annual or periodic gains, profits or income from United States sources—such as interest, dividends, rents, royalties, etc.

The decision to use a foreign corporation would obviously depend upon a thorough study not only of the United States tax laws, but also of the tax laws of the country in which the corporation is to be organized. Further, the effect of any international treaties with that country would also have to be taken into account.

It is important to note that accountants, banks, trust companies, financial institutions, and others who give advice about the formation or organization of a foreign corporation are required to file information returns showing the advice or counsel given. The return must be made on Form 959 and must be filed within 30 days after the advice is given—regardless of the

nature of the advice given and regardless of whether any action is taken upon the advice. Although attorneys are also covered by this general rule, they are excluded if their advice is

given through the relationship of attorney and client.

From *Business Changes for Tax Economy*. The Research Institute of America, April, 1946, p. 32:2.

Insurance

Current Trends in Liability Coverage

PERTINENT observations on liability coverage for manufacturers were made in a recent address* by C. R. Parsons, resident vice president at Chicago of American Mutual Liability. Referring first to workmen's compensation, and the points which the insurance buyer should review with his agent, he stressed the importance of determining whether the act in the state in which the policy is written is extra-territorial. Most manufacturing concerns have representatives who travel, and if the representative is injured while in another state this factor is important. Another point to be determined is whether medical coverage is limited under the compensation act of the state. Many states have limitations of some sort.

Should occupational disease coverage be obtained, and in which states where the company has plants is it a part of compensation coverage? In which states is it elective? While the manufacturer may feel that the occupational disease hazard is non-existent, Mr. Parsons observed, there is always the possibility that changed operations will introduce it.

* Before the St. Louis Insured Members' Conference of Associated Industries of Missouri.

Does the manufacturer need a universal or general coverage endorsement for traveling employees? The agent should point out that while the home state may have extra-territorial coverage, it is generally the rule that the law of the state where the injury occurs takes precedence. If the benefits are higher in that state, the manufacturer has to pay higher benefits than the policy provides, unless he has general coverage endorsement.

Here is another question which the agent and buyer must resolve: Does the company have operating barges or dredges, etc.? If so, federal longshoremen's or harbor workers' coverage should be provided for such employees. Maritime coverage should be provided for employees operating aboard ships or barges. Unlike workmen's compensation, the limits for this coverage are not statutory, but the employer should select adequate limits.

Here are some other questions on workmen's compensation that the buyer should check with his agent:

1. Is business done with independent contractors? If so, the agent must determine whether those contractors have workmen's compensation coverage.

2. Does the manufacturer do business with commission agents where the law might construe them to be employees?

Sometimes a special endorsement is necessary on the policy, specifying that these employees are entitled to the benefits of the act.

3. Are foreign employees protected? A voluntary compensation endorsement will provide benefits to these employees in case of injury.

4. Does the company sponsor athletic teams where an injury to one of the players might be construed as compensable? An endorsement specifically insuring these teams may prevent heavy loss.

A manufacturers' and contractors' liability policy should be outlined and explained to the buyer by the agent, Mr. Parsons said. Such a policy is an agreement to pay on behalf of the insured all sums which insureds shall become obligated to pay by reason of liability imposed by law, with certain exclusions and limitations. Because it is difficult to advise the manufacturer about the limits he should have on this policy, the agent should issue the buyer a comparison of the cost of various high limits. In contrast with workmen's compensation, manufacturers' and contractors' liability policies are not standard in wording. Therefore, the buyer must learn from his agent whether the policy covers the personal liability of officers of the corporation. It should also be determined whether the policy covers operations anywhere in the United States.

Mr. Parsons gave substance to the arguments for buying manufacturers' and contractors' liability by pointing out that there are many examples of high judgments awarded against manufacturing concerns for losses coverable by this insurance. He further observed that any outsider, not an employee, who comes into the plant to perform certain work or to see or interview an employee is considered just as much a member of the public in case of injury as the man injured by one of the salesman's cars.

If unusual construction or repairs are to be made, insurance agents should check on the advisability of acquiring property damage insurance. Many plants do not have it and have regretted later that there was no insurance for damage to property caused by explosions, falling smoke stacks, etc.

The agent and company buyer should check the exclusions of the manufacturers' and contractors' policy, Mr. Parsons said. In general the policy is not applicable where the workmen's compensation law applies or for contractual liability. It does not usually cover liability for loss caused by the insured's aircraft, boats, horses while away from the premises or for automobiles or power driven vehicles. It does not cover product liability or destruction to property owned, used or rented by the insured. Neither does it cover leakage, falling tanks or damage due to rain, snow, or work done by independent contractors.

Elevator liability may be provided by endorsement on the manufacturers' and constructors' policy or by separate policies. The elevator, like the automobile, may be a vehicle for a large-size damage suit. Because of the possibility of several members of the public being injured at one time, limits are usually written higher than in some other forms. It is important to carry insurance on all types of elevators, Mr. Parsons declared. A surprisingly large number of agents and buyers completely overlook freight, the need for coverage on freight elevators and sidewalk hoists.

Automobile, aircraft, and teams liability are more likely to be covered than any other kind, because agents and buyers alike are more familiar with the destructive force or inherent danger in their operation. In connection with

automobile insurance, buyers should consider the advisability of including coverage for hired cars, contract hauling vehicles, liability for employees' cars used on company business or other automobiles used, but not owned, by the company.

Agents should point out that products liability is based on appraisal of the possibility of loss by the particular product. Unfortunate characteristics of this type of coverage are that the manufacturer may not know for months about the possibility of a claim and that a manufacturer may be held liable for a claim resulting from misuse of the product. Many small manufacturers have a greater need for products liability because their ability to pay a judgment is more limited than that of the large chain stores to whom they sell. However, endorsement may be provided extending this coverage to vendors as well.

Contingent or protective liability coverage is needed by the manufacturer who has any work performed for him by independent contractors, Mr. Parsons said. Courts have consistently held that the general contractor is liable

for injury to a subcontractor where the injury was a consequence of his performing the work in the precise manner provided for in the contract, where the work is inherently dangerous, or where the injury is caused by the assignment of some absolutely non-delegatable duties.

The comprehensive general liability policy has been developed as such in recent years and has become fairly well known, Mr. Parsons observed. This policy provides automatic coverage for certain specified types of contractual liability. It is intended to be broad in scope and to include hazards unknown at the inception date of the policy. The security against loss provided by this form of insurance accounts for its growing popularity among buyers. Mr. Parsons warned, however, that too frequently insureds believe there are no exclusions under a comprehensive policy. This is certainly not generally the case, he said, unless the excluded coverage is later endorsed on the policy specifically to provide that particular coverage.

The National Underwriter, March 7, 1946, p. 19:1.

Management Control of Industrial Accidents

A PROGRAM for accident control, adopted by Ford Instrument Company during the war years, proved so effective that the frequency of lost time for accidents was reduced by 85 per cent, and during the war period the company was able to save 673,203 man-hours—the equivalent of a full year's time on the part of 337 workers.

Recognizing that safety is an important phase of factory management, this company believes it essential that the safety department be established as

a staff department within the operating organization, making recommendations to, and receiving instructions from, top management.

The safety organization is composed of various members of the manufacturing division who have broad duties and functions. Committees are made up of supervisory personnel who are responsible for inspecting and approving safety conditions for the entire plant.

The general safety committee meets

quarterly, or as often as necessary, to act on policy development. Its membership includes the vice president in charge of manufacturing (chairman), general plant superintendent, four plant superintendents, manager of buildings and grounds, and the safety engineer (secretary).

The committee passes on reports and minutes of the foremen's safety committees. Other functions include:

1. Developing standards for safety equipment.
2. Applying safety standards to the design and purchase of new equipment.
3. Developing standard operating safety practices, including safety rules and systems of reward or penalty.
4. Making accident-cause classifications for statistical purposes.
5. Reviewing all material that may be referred for action by unit safety committees.
6. Deciding on all matters of policy, and designating authority to the unit safety committee.

Foremen's safety committees meet monthly on both shifts in each plant. The purpose of these meetings is primarily educational, though authorization for safety improvements can be given by members present. Members are as follows: plant superintendent (chairman), union representative (workmen's inspection committee chairman), plant engineer, labor relations representative, four factory foremen, one non-factory department head, safety engineer (secretary).

In addition to the educational benefits derived from the discussions in these meetings, the committee performs the following functions:

1. Acts as a clearing house for all safety ideas and activities; follows through on them until final disposition is made.
2. Reviews investigation of all accidents and is responsible for preventive action.
3. Supervises safety contests or competitions.
4. Assists in deciding questions on applied safety standards.

5. Furnishes the general safety committee with the minutes of its meetings and other detailed pertinent reports, including recommendations for further action.

The workmen's safety inspection committees are made up of three shop stewards in each of the company's four plants on the first shift. These men are appointed by the safety engineer from a list provided by the union president. Each month one member is dropped and a new member is appointed, leaving always two experienced men with the new man to make inspections. When the member is dropped, he is given the opportunity to sit in with management as a member of the monthly foremen's safety committee. Here he has the opportunity to discuss with management any of the unsafe conditions and practices he observed on his tour of inspection. The knowledge that recommendations are being carried out, and perhaps, that some of his suggestions are impracticable, is of educational benefit to him. This knowledge prevents many grievances on unsafe conditions, which, to the shop steward, would be serious—especially if he felt that management was doing nothing about the recommendations.

Each foreman or department head, on both shifts, has one safety inspector, appointed by him and responsible to him for all unsafe conditions or practices observed during his regular duties in his department (a general helper, rather than a machine operator, is preferred). In this way many potential dangers can be eliminated immediately without discussion in regular safety meetings.

Safety engineers inspect each plant on both shifts at least once a week. Recommendations on unsafe working conditions and employee practices are compiled with those of the workmen's inspection committees, Department of

Labor, etc., and submitted to the monthly foremen's safety committee meetings for discussion and possible corrective action.

All projected rearrangements in the plant are reviewed by the safety department for any criticism or recommendations which may be considered necessary. Thus conditions which may create hazards are avoided. Efficient plant housekeeping, incidentally, is considered a highly important factor in accident prevention.

In order properly to care for injuries sustained in accidents, adequate first-aid facilities should be provided. In larger plants, it is believed that a doctor should be in attendance or available for call on very short notice. At the heart of the first-aid system, however, are the industrial nurses, who by their close contact and immediate availability are prepared to take care of emergencies as they arise. These medical personnel must be provided with adequate first-aid equipment, suitable for meeting any probable emergencies. In-plant hospitals are not considered necessary for moderately sized shops in metropolitan areas, but adequate means of transportation are required. It is also believed

that disaster units which were organized during the war years are not essential except in peculiarly hazardous industries.

All visits of employees to first-aid stations, whether caused by accident or illness, are controlled by the issuance of first-aid passes by the supervisor, unless the employee's condition is too serious to permit any delay. These forms are effective controls on the loss of time of the employee and, in addition, require that the supervisor immediately indicate details, in the case of an accident, when they are fresh in his memory.

As soon as the medical department has determined that an employee has an ailment or possible disability which may lead to a claim, his supervisor is immediately notified of the limitation so that he may be guided in his work assignment, to prevent further aggravation of the disability. All employees are given pre-employment physical examinations to screen out those who may prove severe risks in certain types of work.

From an address by A. E. Edwards before the American Society of Mechanical Engineers.

Briefer Book Notes

[Please order books directly from publishers]

GOVERNMENT STATISTICS FOR BUSINESS USE. Edited by Philip M. Hauser and William R. Leonard. John Wiley & Sons, Inc., New York, 1946. 432 pages. \$5.00. Prepared by 20 experts in the various fields of government statistics, this valuable handbook tells what information is available from the Federal Government, the agencies from which it can be obtained, and ways in which it can be applied to business and economic problems.

UNIONS AND VETERANS: *Including a Directory of Leading Unions*. By A. M. Ramsay. Public Affairs Press, Washington, D. C., 1946. 32 pages. This pamphlet presents labor's viewpoint with regard to veterans' jobs, what unions want, and labor and the war.

PROCEEDINGS FOR 1945, National Office Management Association, 2118 Lincoln-Liberty Bldg., Philadelphia 7, Penna. 144 pages. A valuable collection of timely discussions on office management problems. Topics include: new techniques in job analysis; future developments in office equipment; building office morale; microfilming in the office; determination of supervisory effectiveness.

Survey of Books for Executives

NATIONAL COLLECTIVE BARGAINING POLICY. Industrial Relations Counselors, Inc., New York, 1945. 103 pages. \$1.25.

*Reviewed by Elinore M. Herrick**

This study is recommended as timely and valuable—not that all its proposals should be adopted, but because it is a relatively objective analysis of the touchy labor-management problem. It warrants thoughtful reading.

To meet the troublesome questions arising from a steady encroachment on the traditional area of managerial responsibility, Industrial Relations Counselors, Inc., urges that Congress direct and authorize the NLRB to hold public hearings and thereafter announce a broad policy defining "rates of pay, wages, hours and other conditions of employment." The report declares that "it is in the interest of all concerned to know the area in which it is to function and be held accountable."

This dynamic approach is far better than urging Congress to write definitions into the law. The book recognizes properly that there are managerial functions "some aspects of which have gained partial acceptance as proper subjects of agreement negotiations and to a greater extent of grievance negotiations."

The discussion of the controversial issue of compulsory arbitration is very much to the point, particularly for those persons who believe "the government should do something about John L. Lewis." While it is advocated that every labor agreement be required to provide for automatic recourse to arbitration for the final settlement of issues about the meaning or alleged violations of an agreement, the book emphasizes that "direct attempts to enforce industrial peace by compulsory arbitration would lead the government ultimately into determination not only of conditions of employment but also of prices, production and consumption . . . and would certainly not encourage the development of responsible self-government, without which the system of free enterprise cannot function. Any attempt to prohibit all strikes or lockouts is held unwise as weighed in the balance of the price that has to be paid for industrial freedom." A distinction is made, however, in the case of

"essential" industries in which too frequent recourse to the methods of industrial warfare causes intolerable public inconvenience. In such cases extension of the principles of the Railway Labor Act—which "achieves the objectives of compulsory arbitration in fact but leaves the parties ultimately free to exercise their full economic strength"—is recommended.

The report emphasizes that the unions' new position of social power requires elimination of unfair labor practices by organized employees and reform of the internal management of those unions which use coercion to gain members or discriminate because of race, creed, or color. Provision for regular election of officers by secret ballot, for proper accounting of union funds, and for protection of union members against unjust expulsion or arbitrary union discipline is urged plus withholding the benefits of the Wagner Act where such standards are not met. "Any organization or group granted legal rights should be required also to assume correlative legal responsibilities," the study declares.

The report also advocates prohibition of jurisdictional strikes, minority strikes, lockouts or strikes over representation, employer negotiation with rival unions, strikes during the term of an agreement, and refusal of either party to commence renewal negotiations at least 60 days before expiration of an agreement by inclusion of such acts in an expanded list of NLRA unfair labor practices.

Unions will object vigorously—if not violently—to the discussion of the right of individuals to refrain from joining. Although recognizing that "the demand for union security in any of its forms grows out of fear that many American employers are still fundamentally opposed to trade unionism and collective bargaining," the study advocates nevertheless that ultimately, "where experience has removed this fear," the ban upon the closed shop contained in the Railway Labor Act be adopted in the Wagner Act and that this question be "removed from the range of subjects upon which employers are required to bargain collectively under penalty of being charged with an unfair labor practice."

One proposal fraught with danger of encouraging a return of company-dominated unionism is that which would give manage-

* Head, Personnel Department, *New York Herald Tribune*.

ment the right to suggest to unorganized employees that they should join a union or establish one. The inherent danger is not nullified by the statement that "the Wagner Act would continue to safeguard such organizations from company domination."

Greater impartiality, more concentrated effort on mediation and conciliation, elimination of tripartite boards, and longer terms of appointment with higher salaries giving greater opportunity and incentive for independence of judgment are urged as ways of improving government administration in the labor relations field.

PROFITABLE LABOR RELATIONS AND HOW TO DEVELOP THEM. By Paul Mooney. Harper & Brothers, New York, 1946. 209 pages. \$2.50.

*Reviewed by Whiting Williams**

It is hard to imagine that anyone at all concerned over the present serious rift between Management and Men could fail to find Paul Mooney's volume timely, forceful, and altogether helpful. It is timely and forceful because it discusses the implications of such over-all truths as: "The requirements of general management tend to isolate executives—with every level of management and every variety of specialists increasing this isolation. . . . The complications of general management promote decisions based on inadequate information." These are in support of his underlying thesis that "Management has failed to assert positive and constructive leadership in the field of industrial relations."

The book is helpful because the author follows up these generalizations with plenty of sympathetic and useful discussion of the practical problems of the executive as "anything but a free agent" because he is "affected by conditions over which he has no control . . . without authority over (fellow) executives of the same rank . . . whose cooperation he must have in order to get results." This is the kind of top-level thinking which has had too little attention.

Mr. Mooney's main generalizations are also accompanied by the full discussion of such pertinent, practical suggestions for rediscovering the individual employee, restudying his motivation, and regaining leadership over him, as these: "Six factors determine the quality and quantity of effort a man puts into his job: (1) the character and ability he brings to it; (2) the nature of the work; (3) the way he is introduced to his job; (4) the

reward he gets for his performance; (5) the *opportunity* he is given; (6) the *leadership* he receives."

With the help of a specific case study out of his experience, the author makes it plain that no executive or group of executives can base decisions upon the actual facts as to these six points without learning vastly more than they ever knew before about their organization's jobs and its people—especially about both the tangible and the intangible forces which make that organization tick well or tick badly. Beyond all question, exactly this kind of specific down-to-the-bottom thinking about job- and worker-conditioning and motivation has been sorely needed this long time.

So much so that I find it distasteful to utter any criticism. Perhaps, however, it should be said that this one reader regrets that, especially in the book's latter part, so much emphasis is put upon the single item of Training as a near-panacea for the shortcomings of executives and workers alike. Much of this training, however, especially for executives, has to do with the necessity for skill in "analyzing, controlling, and influencing" the factors that regulate performance on each job. So it is to be presumed that such analysis, control, and influence will automatically require more attention than the volume gives to various personality and character factors which, like honesty and fairness, are not so very susceptible to training. It must also be added that, in stressing his training, the author gives much attention to the importance of building the ego of every member of the organization from top to bottom—with comparatively slight possibility, accordingly, of overlooking unduly those intangibles which lie beneath the ordinary training level.

The average reader would also pretty surely be glad to learn of other than the one case history. But these are minor matters.

As a whole, the book is decidedly worth any executive's time.

TRENDS IN COLLECTIVE BARGAINING: A Summary of Recent Experience. By S. T. Williamson and Herbert Harris. The Twentieth Century Fund, Inc., New York, 1945. 254 pages. \$2.00.

*Reviewed by Douglas McGregor**

This well-written and thought-provoking volume is in two parts. The first is a succinct analysis of collective bargaining as it exists today. A brief chapter is devoted to each of

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a dozen phases of the subject, from union recognition through the chief issues covered by the labor agreement to the problems of administration of the agreement and of union-management cooperation. While the discussion is brief, each of these phases is presented in a fashion which highlights important problems. Moreover, the authors have attempted, on the whole successfully, to provide the reader with a perspective which indicates not only where collective bargaining is today, but where it seems to be going.

A chapter by Herbert Harris (economics editor of the *Saturday Review of Literature* and a former editor of *Fortune*) deals with "The Human Side" of collective bargaining in as challenging a fashion as this reviewer has found in print. It should be required reading for industrial executives. Writing in a style which the layman will find completely understandable, Harris makes a psychological analysis of union-management relations and of the role of the worker in modern industry which diagnoses correctly some of the fundamental unsolved problems of industry today.

The authors have presented what is largely a summary of the thousand-page survey of The Twentieth Century Fund published in 1942 under the title, *How Collective Bargaining Works*. However, their journalistic skills have made the present book far more than a digest. They have given the reader a comprehensive view of collective bargaining and its component problems exceedingly difficult to obtain from the larger volume because of the mass of detail which was a necessary part of the survey. One is reminded of the relations between Roethlisberger's *Management and Morale* and the massive *Management and the Worker*.

The second part of this book is a single chapter which is the "program for action report" of The Twentieth Century Fund's distinguished Labor Committee. It is an interesting document in that it represents the unanimous conclusions of a group including representatives of industry, labor, and the public. The Committee recommends wider adoption of industry-wide bargaining (although one member, Sumner Slichter, expresses definite misgiving) and suggests certain devices to implement the recommendation. In a section on the politics of collective bargaining, recommendations are made with respect to the mediation of labor disputes. Finally certain suggestions for promoting "democratic unionism" are made (with reservations by both union and public members of the Committee which seem entirely sound to this reviewer).

The recommendations are provocative and should provide interesting material for discussion among those concerned with the solutions of the important underlying problems of collective bargaining. There will be a good

deal more discussion and writing about them before they can be correctly evaluated. Meanwhile, this volume should be an excellent medium for promoting a better understanding of the trends in collective bargaining which led the Committee to the recommendations which it has made.

THE ENGINEER IN SOCIETY. By John Mills. D. Van Nostrand Co., Inc., New York, 1946. 196 pages. \$2.50.

*Reviewed by L. K. Sillcox**

The moment is propitious for John Mills' latest book. A mighty war, which has had for its audience and participants a vast world, has just ended. In the waging of this war, scientists and engineers assumed a major and decisive role—a role which has commanded a new awareness and respect for their profession. The conclusion of this war, however, has as yet brought with it no reassuring promise of solution of society's ills.

Could it not be that a profession which competently applied its talents in war could do so in peace? The author believes so, and this is his theme. John Mills has spent many years in the field of science as a teacher, an author, a research engineer, a recruiter of new members for the technical staff in Bell Telephone Laboratories, and finally, as assistant to his colleagues in the publication of the results of their work in research. These years of active participation and observation do not prompt Mr. Mills to give his readers the illusion that he has the safe and happy solution to the problems of man, but he does offer hope. This hope lies in the self-assertion and organization of scientists and engineers who by training and experience in their work are disciplined in the scientific method.

The man of science must know himself and others before he is capable of making the greatest possible contribution. He must not only know his own approach for comprehension, but the approach best suited to those whom he hopes to serve. Mr. Mills doesn't subscribe to some of the conventional aptitude tests, but rather he indicates in his own way, the breadth and depth of man's mind; the basic types into which men of science may be grouped; the fact of possible misdirection where man's basic interests have not been fully realized and expressed; the revelations of aptitudes which are not concerned solely with abilities but

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desires; and the possible distribution of man's time so that he will find satisfaction in the dietetics of his job.

These thoughts the author presents as suggestive of the desirability of a clearer insight into men of his profession and the men, in turn, to whom scientists must learn to make themselves clear. These are chapters which the individual will ponder, but take warning—there are no 10 easy lessons to success.

In his consideration of what manner of man the scientist is, Mr. Mills discusses the well-known phenomenon of the scientist gone executive. Albeit, executives are distinct necessities, but he asks if they should be fabricated from the scarce and precious material of which the research scientist is woven. He does not think so and recommends that the temptation of executive work should be offset by a greater emphasis on individual contribution and a policy of freedom of scientific speech which will give the individual in research increased satisfaction with his productive life.

Mr. Mills has indicated what he calls the last hope of civilization, and the burden of realization of this hope falls on the engineer and the scientist. It is for them to discard the prejudices with which they have previously approached human problems and apply instead the scientific method which they so

effectively used for generations in approaching problems in their own field. This must be done, too, with the full cooperation of others in the profession, just as was so magnificently done during the war, and just as they have so often cooperated in the works of peace. To do this they must be free of vested interests and the selfish motives of pressure groups. They must serve, and for this service they must be adequately compensated. This is no small order, either for society in general—which ultimately, it is hoped, will see the light of the objective approach—or for the scientist and the engineer who must initiate and carry it forward.

The Engineer in Society is a book challenging not only the scientist and the industrialist, but society in general. Yes, toes are trampled, and sometimes the reader may feel that the author has digressed. Further thought however may justify, for instance, the fine chapters on the art of exposition which conclude the book, not only because the author has a style and an ease of his own in writing, but because there is a basic pattern of development. Few readers may subscribe to the book in full; many may take strenuous exception to the author's contentions. Yet it is just possible we need more than a gentle prod to become aroused from our lethargic acceptance of the status quo.

PUBLICATIONS RECEIVED

[Please order directly from publishers]

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WHAT PRICE SUPERVISION: How Management Can Build a Stronger Supervisory Force. By R. D. Bundy. National Foremen's Institute, Inc., Deep River, Conn., 1946. 48 pages. \$2.00.

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